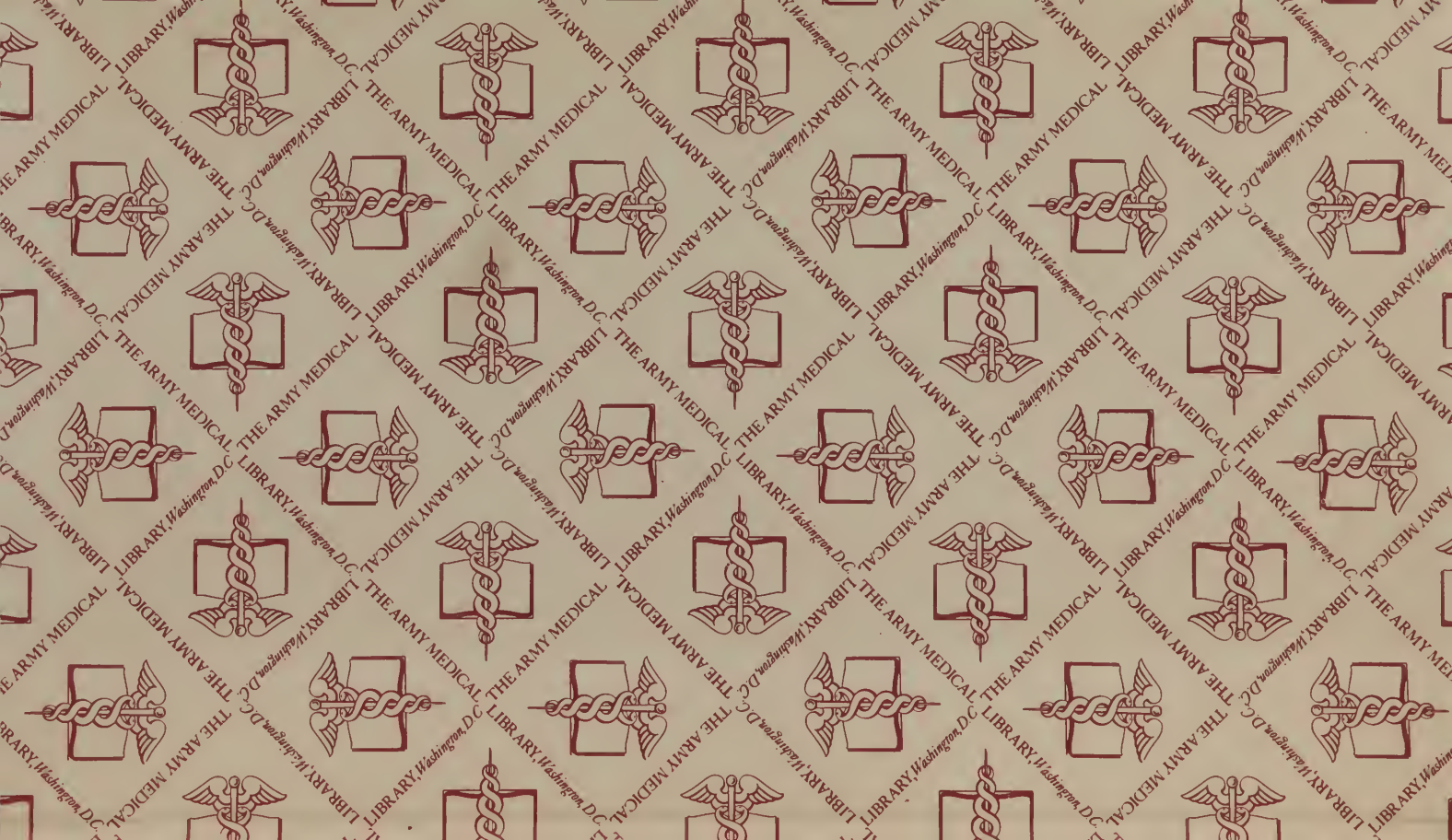
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DISEASES

OF

THE UTERUS.

LECTURES ON THE FUNCTIONS AND DISEASES OF THE WOMB,

BY CHARLES WALLER, M.D.,

Lecturer on Midwifery and the Diseases of Women and Children, Bartholomew's Hospital.

LECTURES ON DISEASES OF THE UTERUS AND ITS APPENDAGES,

BY M. LISFRANC,

Surgeon to La Pitie Hospital, etc., etc., etc.

CLINICAL LECTURES ON DISEASES OF THE PUERPERAL STATE,

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PREFACE.

The American editor of the three series of Lectures on the Diseases of the Uterus, included in the present volume, has confined himself to the task of selection and arrangement, under a belief that the copiousness of detail, both in pathology and treatment, might well dispense with annotations by even a more experienced hand. The only qualifying remark made in addition to the text, is that on amputation of the *cervix uteri* as performed by M. Lisfranc, whose too confident assertions of success in this operation are calculated to mislead the young and sanguine practitioner.

These Lectures are all taken from the *London Lancet*. To the American reader they are now, for the first time accessible.

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ON THE

FUNCTIONS AND DISEASES OF THE WOMB,

BY CHARLES WALLER, M.D.

LECTURE I.

General Observations and mode of arrangement. — Function of the unimpregnated womb. — Age at which menstruation commences, various. — Symptoms attending its appearance. — Time of duration. — Period of cessation. — Use of the flow. — Discharge peculiar to the human female. — Secreted by the uterus. — Supposed to possess noxious qualities. — Lunar influence. — Enlargement of womb at the period of menstruation.

Your attention, gentlemen, having been in due course directed to the structure of the uterus, it will be my business now to proceed to the consideration of its diseases.

You will recollect, with respect to the anatomy of that organ, that it should be brought before you in a twofold point of view; viz., in the first place, by a description of the uterus in its unimpregnated condition, and afterwards by noticing those remarkable changes which take place after impregnation, or, in other words, the anatomy of the gravid uterus. The same order will be followed in the consideration of uterine diseases, and I shall now, therefore, request your undivided attention to a numerous, yet, I fear, too little studied class of affections, which frequently render the life of a female very irksome, not to say very miserable; I mean those to which the unimpregnated uterus is obnoxious.

Before, however, we enter upon a description of the more serious diseases of the womb, it will be better for us to make a few observations upon the *function* and functional disorders of this organ.

MENSTRUATION AND ITS DISORDERS.

It may with truth be asserted, that of all the derangements of function to which the female system is exposed, there are none more common, or which excite more uneasiness, than the irregular performance of the uterine at its monthly periods. Nor is this

without reason; for although in many instances, as we shall presently show, the disturbance of the catamenia is an effect, and not a cause, yet it is well known that the disorders producing it are generally of a very serious nature, and which, if not properly attended to, would prove highly detrimental, or even destructive to life itself. Hence I would impress upon your minds the necessity of careful investigation with regard to the nature of these affections, that you may not fall into the error of supposing the uterus to be the only part in fault. The state of the constitution *generally*, as well as that of each individual organ, must be inquired into, or we shall, in many cases, fail to effect a cure. Take, as an illustration, amenorrhœa, or defective menstruation: this is sometimes the mere result of a debilitated condition of the system at large; at other times it may be clearly referred to some particular organs, a diseased action occurring in which, derange the functions of other parts, and that of the uterus amongst the rest. Again, the opposite condition, menorrhagia, or an immoderate menstrual flow, is sometimes kept up, if not altogether produced, by congestion of the hepatic system, and may be considered as an effort of the *vis medicatrix naturæ* for the purpose of relieving the over-distended vessels of the liver. The absurdity of attending to the condition of the uterus alone, without, at the same time, applying our remedies to the removal of the original cause of the disorder, is too obvious to require more than a passing notice. I shall consider this part of our subject under the three following divisions: — 1st, we shall direct your attention to the healthy function of the unimpregnated uterus, or menstruation; 2dly, to the disorders of that function; and 3dly, shall make a few observations on that important period of female existence at which the function ceases; this has popularly, though not inaptly, been designated "the turn of life."

THE FUNCTION OF THE UNIMPREGNATED UTERUS.

The womb, in its healthy unimpregnated state, is perhaps the most inactive organ in the body, having a function assigned it, the performance of which is required once only in the lunar month, and hence its name, the catamenial or menstrual discharge. It consists in the periodical flow of a dark red coloured fluid, sanguineous in appearance, and usually recurs with great regularity in females who are neither pregnant nor nursing.

When this evacuation first makes its appearance, the female is said to have arrived at the age of puberty; although of this condition Dr. Denman has well observed, "it is an effect, and not a cause." At this period several important changes may be noticed in the development of the organs of generation themselves, and also of the bony case by which they are surrounded. The womb enlarges considerably, both in its length and breadth; the fissure between the lips of the os uteri becomes more distinct to the touch. The ovaria also increase in size and vascularity. The mons veneris

is much developed, and covered with hair; its precise size varies much in different individuals; in those of spare habits it is small, whilst in those of an opposite character it is often large.

The alæ of the ossi ilii expand, and, with the other parts of the pelvis, now assume that particular form which so strikingly characterises it from that of the male; prior to this period you would find it much more difficult to distinguish the sexes from a mere inspection of the bones of the pelvis. There is also considerable enlargement of the glandular structure of the breasts; instead of being, as heretofore, flaccid and flabby, they become hard and tense. Not only do we observe these *local* alterations, but others also of a more general character; the countenance becoming more animated and expressive, the conversation more intelligent and agreeable, the powers of mind more developed, and the heart agitated by passions and emotions to which it had been previously a stranger. Listen to this circle of changes as described by the celebrated Hervey:—"Hoc minus notum est," he observes, "quanta virginea alteratio contingat, increscente primo et tepefacto utero: pubescit nempe, coloratior evadit, mammæ protruberant, pulchrior vultus renidet, splendent oculi, vox canora, incessus, gestus, sermo; omnia decora fiunt." With respect to the voice, however, it may be observed that the change is by no means so conspicuous in the female as in the male. Richerand has distinctly shown that this alteration in the voice at the time of puberty depends upon the larynx undergoing an increase in capacity. He states that, in the male, the aperture of the glottis augments in the proportion of 5 to 10, in the course of 12 months; that its extent is, in fact, doubled both in length and breadth, whereas the glottis of the female only enlarges in the proportion of 5 to 7.

The precise age at which these changes occur, differs in different individuals, being under the control of various moral and physical causes. The temperance of the individual, her habits of living, and the peculiar climate in which she resides, appear to be the principal agents in accelerating or retarding the period of puberty. We shall find, as a general rule, that females in the more southern and warmer regions, menstruate at a much earlier age than in cold and northern climes; for example, in Greece, the Morea, Java, &c., the discharge often appears in girls of 8, 9, or 10 years old. In Spain, Sicily, and the more southern parts of Europe, at 12 years of age; whilst in Lapland there are no symptoms of the flow until females are about 18, 19, or 20 years old. In the more temperate climates, as in our own country, an intermediate period is, for the most part, observed, menstruation usually commencing from about the fourteenth to the sixteenth year. Numerous exceptions might be adduced to this general rule, in which no inconvenience was experienced by the female. Dr. Wall relates a case in the *Medico-Chirurgical Transactions*, of singular precocity in a female infant, where the menstrual flux appeared at the age of nine months, and I have known an instance myself in which there was no appear-

ance of the catamenia until nearly the twentieth year. The difference in the time of life at which puberty takes place has been assigned by the historian Hume as the reason why women in hot climates are so very commonly treated as slaves, and why, on the contrary, their influence is so extensive in the colder regions; in the former it may be said that woman is in the zenith of her beauty whilst a mere child in understanding, and long before her intellect is matured she ceases to be an object of love; the fact being the very reverse as regards the latter.

The climate, manner of living, and the peculiar constitution of the female, appear also to have a manifest influence on the *quantity* of the secreted fluid, although there are in this respect also great variations in women of the same country, and even in the same individual at different times. In warm climates the quantity is usually large, in the cold regions it is small, and in our own land it observes a mean between the two, the average amount being about six ounces. If, however, the female live luxuriously, or confine herself to a warmer apartment than usual, the quantity will be greatly increased.

The menstrual discharge is generally completed in a period of time varying from three to six days, but here again we must notice great variations; some females menstruate for one day only, whilst in others, ten, twelve, or even fourteen days may elapse before the flow ceases. Its periodical return is, in some, marked by great regularity, not only as regards the day, but sometimes almost the hour. In others, on the contrary, it frequently takes place a week earlier, or a week later, than its natural and proper time; and all this may happen without any bodily suffering supervening.

The final cessation of the menstrual flow is regulated by the period of life at which it commenced, as it usually continues for the space of thirty years; thus, if a female commence menstruating at the age of from fourteen to sixteen years, the flow will, in all probability, cease about the forty-fourth or forty-sixth year, and after this has taken place conception cannot occur. We see from this fact that the process of child-bearing is wisely confined to the most vigorous period of female life. Arterial plethora is said to be the cause of this evacuation; it ceases when venous plethora commences. Its use appears to be that of preserving the uterus in a fit state for impregnation; at any rate it is well known that the due and healthy exercise of this function indicates a capability of conception, and, as a general rule, it may be stated that females whose menstrual action is disturbed, rarely conceive. There are, however, many exceptions to this statement; two cases have come under my own observation, in which conception occurred, although the females had never menstruated at all; the age of one was between 13 and 14, that of the other about 16. Again, there are numerous instances in which females have become pregnant immediately after marriage, although the menstrual function had previously been performed with great irregularity. I repeat, however, that

these are to be regarded as exceptions, or deviations from the ordinary course of nature's proceedings.

In cases of obstructed menstruation vicarious discharges of blood occasionally take place from different parts of the body; this has been specially noticed in those who are the subject of ulcerated legs, for at the time when the menses ought naturally to appear, these parts inflame, and a little blood is seen to distil from the surface of the sore; in fact, all diseased parts seem to grow worse, their vessels becoming more turgid at that period. The nervous system is also more irritable than at other times.

Menstruation is seldom completely established without the supervention of many unpleasant symptoms: there is pretty uniformly a feeling of languor and lassitude, headache, dull, heavy pains in the loins, hips, and region of the uterus, these frequently extending to the upper and inner parts of the thighs; the stomach is often sympathetically affected, the appetite bad, and the bowels confined. Nervous and hysterical symptoms frequently manifest themselves. After a longer or shorter continuance of some or all the symptoms just enumerated, a pale mucous discharge exudes from the vagina; this may in some instances be slightly coloured, but seldom assumes its sanguineous appearance until after several monthly periods. When the secretion is thoroughly established, and this will be known by its coming away in proper quantities, and of a red colour, these painful affections usually vanish, although in some females they recur with great violence, and with pertinacious regularity, throughout the whole term of menstruation, and these females rarely conceive.

The *discharge* is peculiar to the human female, none of the lower order of animals being subject to it; if, however, you examine their genital organs, you will find that in many there is a great determination of blood at certain periods: a well-known illustration of this fact is afforded by the common domestic rabbit.

The lining membrane of the uterus is the source whence it flows, from the vessels of which it is clearly a secretion, for, notwithstanding its bloody appearance, it possesses not the coagulating principle, and appears to have the power of resisting the putrefactive process for a lengthened period of time. In cases of imperforate hymen, where the fluid has been shut up within the cavity of the uterus for months and even for years, no clot has been detected, although some alteration in its consistence is observable; it becomes insipissated, somewhat resembling treacle. A doubt formerly existed regarding the part which furnished the secretion, whether the membrane of the womb or that of the vagina was employed in this office: this doubt has been, however, unequivocally set at rest, for in cases of recent inversio uteri it has been seen to ooze from the uterine membrane itself: the same fact has been also noticed in the dissection of females who have suddenly died whilst menstruating. Dr. Blundell had once an opportunity of

seeing the discharge drop through the os uteri in a severe case of procidentia.

An opinion, altogether unfounded in fact, was entertained by many of our old medical writers, that the menstrual fluid possessed properties of a malignant nature. This notion probably owed its origin to the severe regulations enforced under the Jewish dispensation, respecting the conduct of women at this particular time. The discharge, however, seems to be as innocuous as any of the other secretions of the body, and therefore we cannot agree with the opinion of De Graaf, who, in reference to this subject, expresses himself in the following words: — "Penis cum menstruatâ concumbentis excoriatur, si novella vitis eo tangatur, in perpetuum lædi-tur, steriles sunt tactæ fruges, moriuntur insita, exuruntur hortorum germina: si mulier pregnans alterius menstrua progrediatur, aut illis circumlinatur, abortum facit: ei autem quæ uterum non gestat concipiendi spem adimit: purgantis spiritus, et vapor ab ore, specula atque eboris nitorem obscurat: gustatus hic sanguis canes in rabiem agit, homines vero diris cruciatibus affligit, comitialem morbum, pilorum effluvium, aliaque elephanticorum vitia: idcirco a veteribus inter venena relatus: pari malignitate existimatur atque sanguinis elephantici potus."

In consequence of the monthly return of the evacuation, some physiologists have imagined that the influence of the moon was in some way or other concerned in its production. The late celebrated Dr. Mead entertained this opinion, for he states that the catamenia are equally with the tides the subject of lunar influence. This theory is too absurd to require any lengthened refutation; and I will merely observe, that an unanswerable objection is afforded by the well-known fact, that different females are menstruating every day throughout the month, whereas, had the secretion been the consequence of lunar influence, we should naturally expect it to take place on the same day, and even at the same hour, in all. Just before and at the time of the menstruation, the womb is greatly augmented in size, and this is easily accounted for by the increased quantity of blood determined to the organ at that time. Dr. Blundell had an opportunity of noticing this in a case of procidentia, which came under his immediate observation. He says, "the increase took place regularly, and the whole womb might distinctly be felt to throb, and hence we may reasonably infer," says the doctor, "that whatever may month by month be the cause of the topical increase of the vascular action in the menstruating vessels, it is the determination of blood on the uterus, produced by this topical excitement of the vessel, that gives rise to the discharge. When women are led from disease of the pelvis to examine the uterus, they sometimes imagine it to be larger at that time, or immediately before." I may also remark in conclusion, that there is often a sympathetic affection of the breasts; there is distinct enlargement, with a greater degree of firmness, not always unattended with pain. The menses, in popu-

lar language, has received various designations, such as *the courses, the terms, the flowers, the change*, and so on. More commonly, however, females during the flow call themselves *unwell* or *out of order*, or perhaps they will tell you they have not seen *them* for a longer period than usual, or *they* have been upon them for such and such a time. You should always be aware of their meaning when your patients thus express themselves, or they will have but a poor opinion of your knowledge of female disorders. Having considered the function of the unimpregnated uterus, and having noticed the various circumstances connected with its healthy action, we shall, in the next lecture, proceed with the description of its various disordered conditions.

LECTURE II.

Disorders of the menstrual function. — Amenorrhœa, or chlorosis; its varieties. *Emansio mensium.* — Organic defects. — Imperfect formation. — Closure of the orifice of the vagina, or uterus, remedied by operation. — Case in which a female never menstruated. — Symptoms of chlorosis. — Treatment of chlorosis.

DISORDERS OF THE MENSTRUAL FUNCTION.

Although in many women we find the function of the uterus proceeding with great order and regularity throughout the menstrual period of their existence, yet in others (and these by no means a few) you will observe great deviations from its natural and healthy action. For example, there may be an entire absence of the flow constituting the disorder *amenorrhœa*, or there may be excess in the quantity effused, *menorrhagia;* or thirdly, the secretion, though regularly performed as to time, may, nevertheless, be attended with pain and difficulty, *dysmenorrhœa.* These three varieties of disordered menstruation it will be necessary for us to examine in detail, when we shall find that, with probably the exception of the last (*dysmenorrhœa*), they are seldom idiopathic, but commonly depend upon some morbid condition of the general system, and consequently, unless *this* be attended to, all your endeavours to rectify the catamenial flow will prove unavailing.

AMENORRHŒA.—*EMANSIO MENSIUM*, OBSTRUCTION, RETENTION, SUPPRESSION, CHLOROSIS.

The term amenorrhœa is generic, and comprehends two distinct orders of disordered menstruation; first, those cases in which the discharge has never appeared, and this is called *emansio*, retention, or obstruction. In other cases the flow becomes interrupted after it has been continued for several months, or it may be years, and

this we designate suppression. In the first place, then, the menstrual action has never been established, whilst in the *second*, there is a stoppage after it has been regularly set up.

Emansio Mensium. — The causes producing this disorder are twofold; they may arise from imperfect organisation, or they may be the effect of constitutional causes. I shall hastily pass over the former, as they are not of common occurrence. The genital organs, I have just stated, may be but imperfectly developed; thus, the uterus, with its appendages, the ovaries, may be of very diminutive size, and to these defects the non-appearance of the menstrual flow may be attributed. Certain appearances, connected with the female herself, will enable us to judge with a tolerable degree of accuracy of this condition of the parts, for in these individuals the usual changes, marking the period of puberty, do not occur either in the uterus, external organs of generation, or in the mammæ; there are no sexual appetites; the female, at the age of 20, or even 30 years, appearing, when compared with others of equal age, to be a mere child. *Emansio mensium*, arising from this cause, is, of course, irremediable. Again, the catamenia may fail in making their appearance in consequence of another defect, viz., obstruction of the orifice of the vagina, or of the os uteri itself. It is not common for the uterus to be closed, but the vaginal orifice may be; the hymen (that membrane described as passing across the vagina, and usually perforated by a central opening) being completely imperforate, so that the fluid secreted by the inner membrane of the womb is prevented from escaping, and is, consequently, detained in its cavity. Some obscurity will arise, unless the case be thoroughly investigated, as the symptoms may be confounded with those of pregnancy. No inconvenience will be experienced until the age of puberty, the uterine function not being previously established; at this time, however, pains are felt in the breasts, loins, and lower part of the abdomen, which return periodically. If the girl be of spare habit, the fluid will be secreted in small quantities, and therefore the defect may remain undiscovered for many months, or perhaps years. Even in a strong, healthy female, the quantity is so small that no inconvenience will be felt at first, and the practitioner will not, in all probability, be consulted before she begins to suffer from distention.

At length the uterus increases in size, and the accumulated fluid pressing down behind the hymen, protrudes the vagina, upon which small specks of ulceration are occasionally discernible. The enlarged womb may also be stimulated to contraction; and if you make your *first* examination at this period, you might probably not only consider your patient to be pregnant, but actually in labour; the protruded and tense state of the hymen conveying the same sensation to the touch as the bag containing the fœtus and liquor amnii. If the finger be retained until the uterine action has subsided, the mistake will be at once rectified, for you will find, on endeavouring to pass the finger forward, for the purpose of ascer-

taining the condition of the os uteri, that its progress will be resisted, or rather, altogether obstructed, the vaginal canal being completely shut up by the imperforate hymen.

This state of parts is easily remedied by incision, and for this purpose a scalpel is the best instrument; far superior to the troear recommended by some, as the intention of the operation is not simply the removal of the fluid, but also to afford space for sexual intercourse. The patient should be placed upon the back, on a table of convenient height, in a position similar to that in which surgeons place their patients before performing the operation of lithotomy; we are directed to pass the knife through the membrane first in a longitudinal direction, and afterwards transversely, so as to form a crucial incision, and then to make a number of little cuts in the divided edges. I do not think, however, it is necessary to do more than make a *free* longitudinal incision; for in a case I lately attended with Mr. Dunn of the Strand, in which the orifice of the vagina was closed up, the woman being in hard labour, I made but one incision in the longitudinal direction, after which the parts dilated sufficiently to allow the child to escape without difficulty. After the opening has been completed, pressure is to be made through the abdominal parietes with a tolerable degree of force, that the uterus may be thoroughly emptied of its contents, and the operation is finished by the injection of tepid infusion of chamomile into the womb. The fluid evacuated has usually the consistence of thick cream; the longer it has been detained the more dense it becomes. It is to be borne in mind, that this fluid never coagulates, and seldom acquires an offensive smell. Great attention should be paid, during the healing process, to prevent the parts uniting by adhesion, and this is readily effected by the introduction of pledgets or tents of sufficient size.

Should the os uteri be closed, I imagine a somewhat similar operation would be required. I never saw a case of occlusion of this part but once, and that was at the time of labour; the womb ruptured, and the unfortunate woman lost her life. A curious case of retention came under my notice some years ago; the lady was about 32 years of age, was married, but had never menstruated. She had the usual sexual appetite in rather a lively degree. I examined the organs of generation very carefully, both internal and external, and they appeared to be fully, nay, rather largely, developed. I had great difficulty in making up my mind as to the precise nature of this case; the fully-developed condition of the generative organs, and the presence of sexual desire, prove the existence of the ovaries, the opposite condition being the well-known effect of ovarian defection. I may, also, further observe, that the tone of voice in this individual was masculine, and her features coarse, and she had little hairs sprouting out from her upper lip, somewhat resembling the beard of a male.

I observe, however, once more, that organic defects in the genital organs are very rarely met with. Imperfect menstruation is usu-

ally the result of other causes, to which we must now direct our attention.

The most common condition of system in those who are the subjects of *emansio mensium*, is that which is designated chlorotic. This word is derived from the Greek χλωρος, *viridis*, and it is applied more particularly to those cases where, from a deficiency of red blood circulating through the vessels, the skin becomes pallid, and assumes a yellowish-green tint, and hence its popular appellation, the "green sickness." These patients complain of weariness and languor; there is disinclination to move about; a slight degree of muscular motion producing symptoms of great debility and exhaustion; the pulse is small, irritable, and frequent; the tongue pale; pains are experienced in various parts of the body, more especially in the head, chest, or scrobiculus cordis.

The secretions are almost universally at fault, the appetite bad, and the bowels constipated; palpitation of the heart, difficulty of breathing, and a teazing cough, are produced upon slight exertion; the countenance exhibits most strongly a deficiency in the red particles of the blood, the cheeks becoming sallow and the lips pale; swelling of the lower limbs, especially towards evening, is also a very common symptom.

In many cases there is cough, a somewhat difficult breathing, and occasional nightly perspirations, and hence mistakes have been committed; the female has been supposed to be labouring *under*, and erroneously treated *for*, pulmonary disease. A little consideration will, however, enable us to discover the true nature of the disorder, for although the symptoms just enumerated, to a certain extent, resemble incipient phthisis, yet we know that they may be produced altogether, in consequence of a defective supply of the circulating fluid, and these causes may be readily distinguished from each other. In chlorosis, a full inspiration gives no pain; exposure to a cold atmosphere excites no disposition to cough; there is little or no expectoration; the bowels are constipated; there is no inclination to take food; and the spirits are unusually depressed. In these particulars chlorosis differs materially from incipient phthisis; and I might add, as another distinguishing character of the former complaint, that hysterical symptoms are generally present. The distinction between these two diseases is highly important, as the treatment required for the one would be productive of serious mischief if employed in the other.

A female may not menstruate at the usual age of fifteen or sixteen years, and yet there shall be nothing radically wrong in her constitution. Some women do not arrive at puberty so soon as others, and suffer no inconvenience on that account. It must not, therefore, be hastily inferred that, because the secretion does not appear, there must *of necessity* be some defect, either of the system *generally*, or of the generative organs *particularly*.

Treatment of Chlorosis.—Upon a careful consideration of the symptoms just described to you, it will be evident that the non-

appearance of the menstrual discharge is not *the disease*, but a mere effect, in common with many others, of an impoverished condition of the system. The indication then to be fulfilled is not to force the evacuation, but to mend the constitution, which is in too languid a condition to support its usual functions, and cannot, therefore, be expected to take on a new action. The bowels should be thoroughly emptied in the first place, and their regular action afterwards secured by the use of occasional laxatives; but be careful not to use the saline, or indeed any other active purgatives. A sufficient quantity of pil. rhei compos. will answer your purpose exceedingly well, and, from the mildness of its operation, will not increase the symptoms of debility already present. By some it has been considered preferable to commence the remedial plan by the employment of an emetic: to this, as a *general rule*, I have a decided objection, believing it to be unnecessary. In some cases it may, however, prove serviceable; in those, for instance, where there is constant nausea, with frequent disposition to vomit, and nothing ejected; here you may prescribe *sulphat of zinc* grs. xxv., *tepid water* ℥j. The preparations of antimony or ipecacuanha are not so serviceable, in consequence of the depressing effects upon the system which they invariably produce.

The most powerful tonic remedies will next be required: amongst which the different preparations of iron have long been held in deserved repute. The form in which this remedy is administered may be varied according to the patient's inclination, some preferring a liquid, such as comp. mixture of iron, tincture of muriate of iron, acetate of iron. This latter is the most agreeable of the liquid preparations. Again, you may give it in powder, sesquioxyd. of iron; or in pill, compound iron pill. In the dispensary to which I am attached, I have, what I term, my pilulæ ferri ready prepared: they consist of the sulphate of iron, made into the proper consistence, with extract of gentian, each pill containing one grain of the sulphate, and of these the patient may take one *thrice* or four times a day, where this remedy is indicated. This is a very efficient form of administering iron, and in dispensary practice is has this further advantage, that it is a very economical one.

The vegetable bitters sometimes are of great service, and where iron disagrees with the stomach, some one or other of these should be tried: either cascarilla, calumba, cinchona, or gentian. The combination of sulphate of quinine, with large doses of capsicum, made into a pilular mass of proper consistence with the extract of gentian, form a most valuable tonic. The medicine appears to excite a more lively and healthy action in the lining membrane of the stomach, producing a better secretion of gastric fluid, and thus materially aiding the process of digestion: it should, therefore, be given thrice in the day, about an hour before meals. A small dose of mercury, not more than a single grain of blue pill, given every night, will assist the cure, by improving the state of the secretions

generally. The effect produced by the mercury must be narrowly watched, as you must immediately discontinue it should the irritability of the system be increased by its use.

Some discretion is required with regard to exercise. It is popularly believed that strong muscular efforts are of peculiar service; but this is by no means the case: it is useless, nay, it is decidedly cruel, to enforce active exertions before the constitution has in some degree recovered its tone, and when that has been effected, the female will lose the disinclination to move about, and will take as much exercise as necessary. My general advice to my patients is, that no exertion should be taken which induces fatigue.

The regimen should correspond with the remedial plan; a generous diet is required, care being at the same time had that food be taken in small quantities at a time, so as to prevent the stomach becoming uneasy by distention. A certain portion of stimulating drinks must also be allowed: either wine, ale, or Dublin stout, the latter in most cases to be preferred: benefit will be derived from this fluid being taken not *with* the meal, but an hour or two afterwards. If the nights be sleepless, an anodyne, composed of tinct. of hyoscyamus, with syrup of poppies, will prove serviceable: opium should not be employed, as it has a tendency to interfere with the secretions necessary for the perfection of the digestive process. In by far the larger number of cases anodynes are not required; the symptoms are those of heaviness and torpor, rather than those of watchfulness and indisposition to sleep. There is occasionally a very irritable condition of the intestinal canal; the bowels, instead of being constipated, are relaxed, and it will be necessary early to correct this state, as the general debility will be greatly increased by its continuance. You can give nothing better for this purpose than tartrate of potassa and soda, syrup of poppies, each ℥j., peppermint water, ʒx. This draught may be repeated every three or four hours, and at night five grains of mercury with chalk, with five or eight of the compound ipecacuanha powder. Should there be much acidity of the stomach, ten or fifteen grains of the sesquicarbonate of soda may be added to each draught. With respect to diet in these cases, it is scarcely necessary to observe, that those articles should be selected which have the least tendency to undergo the acetous fermentation; the use of vegetables, and every kind of fermented liquor, should be interdicted; the best drink is soda-water, with an excess of alkali, and the occasional addition of two teaspoonfuls of brandy. A flannel dress greatly contributes to the comfort of the patient, as she usually feels cold; it tends, also, to encourage the cutaneous circulation. The tepid sea-water bath, followed by friction with flannels, and, in short, everything which rouses the system from its atonic and torpid condition, may be advantageously had recourse to. The cure of this malady, although in many instances protracted, is, nevertheless, in general certain.

When the remedies are successful more blood will be formed, and the effects soon manifest themselves; the countenance no

longer presents a pale, sickly appearance ; the lips lose the peculiar tinge previously existing, and become florid ; the eye brightens ; the dyspnœa and cough are relieved. If at this time nature appears to be making an attempt to bring on the discharge, and this will be indicated by uneasiness and weight in the loins and region of the womb, it will be right to assist her by means of the hip-bath ; but do not, I beseech you, so far forget rational principle as to have recourse to that empirical practice, the employment of stimulating and forcing remedies, called emmenagogues.

If the view I have taken of the nature of the complaint be correct, the absence of menstruation is to be considered as a symptomatic affection, and not the original disease, the fault resting with the system at large ; and, indeed, we may consider it to be a merciful provision of nature, that in such an impoverished condition of the system this drain should not be established. When recovery of the general health takes place, the uterus will perform its proper function in common with the other organs of the body.

From the natural diffidence and modesty of the female sex, the medical man is seldom applied to sufficiently early, and the opportunity thus afforded has been eagerly seized hold of by quacks and charlatans, who, by their bold and impudent assertions, and their unprincipled and flagrant violations of truth, have succeeded but too well in their attempts to deceive ; and the poor, unfortunate chlorotic, by her easy credulity, has exposed herself to months of suffering, from which she might have been relieved by proper medical advice.

In conclusion, I would observe to you that there are no cases which more strikingly evince the superiority of correct treatment than those of chlorosis. A patient applies for relief in a debilitated and emaciated condition, a trouble to herself and all around her ; probably half starved, and nearly poisoned by digitalis, under the supposition of commencing phthisis. By tonic medicines and a generous diet the system becomes invigorated, and the distressing symptoms vanish. Many cases of this kind have come under my own immediate observation.

LECTURE III.

Obstruction of the menstrual flow accompanied with plethora ; symptoms and treatment. — Emmenagogues improper. — Suppression ; its varieties. — Sudden suppression ; symptoms and treatment. — Vicarious discharges of blood. — Suppression frequently the result of ill health, and treatment required. — Suppression natural under certain circumstances. — Menorrhagia ; varieties. — Active and passive menorrhagia.

Although *obstruction* of the menstrual discharge (*emansio mensium*) is very generally dependent upon a chlorotic state of constitution, as described in our last lecture, yet you will now and

then find, though these instances are rare, that the interruption is occasioned by the opposite state, the system being in a plethoric condition, the vessels being over full. The symptoms differ so essentially, that it is impossible for you to commit an error in this respect, as they are just the opposite to those which have already passed under our notice. The general appearance of your patient will at once indicate this condition; her face is flushed instead of being pale and sallow, the pulse beats with force, and is not inordinately accelerated; there is frequently intense headache, thirst, dryness, and heat of skin, a furred state of the tongue, diminution of the secretions generally; in short, you will perceive all the marks of febrile disturbance, and these are liable to periodical exacerbations occurring, perhaps, once in every three or four weeks. You scarcely need be told that the treatment required for the cure of this kind of obstruction differs greatly from that which is required in ordinary cases of chlorosis. Your plan is, indeed, exceedingly simple; your single indication being to reduce vascular action, and this is done, 1st, by *venesection:* blood should be removed from the arm in small quantities, say from four to eight ounces, and this operation must be repeated every four weeks. If, upon careful examination, you find that there is determination of blood to any particular organ, cupping-glasses may be applied in the neighbourhood of the part, or, in some instances, leeches may be preferred. 2dly, by *purgation:* your object here is not simply to empty the bowels, but to lower the system; you will select, therefore, those remedies which, by acting upon the mucous membrane, produce a very copious watery secretion. A sufficient quantity of sulphate of magnesia dissolved in the infusion of roses, and administered three times daily, will be as serviceable as any; a grain or two of the chloride of mercury may also be given every night. 3dly, by *spare diet:* it is quite clear that no benefit would be derived from the method of treatment under consideration, if we were, at the same time, to allow full nourishment; the plan, therefore, must be carried out by allowing food in small quantity, and not of very nutritious quality. Animal food, for the most part, is to be abstained from, and all stimulating drinks avoided. By these three methods, then, viz., by venesection, by purgation, and by spare diet, the plethora is to be overcome, sometimes in a longer, sometimes in a shorter period of time; and the natural and healthy balance of the circulation having been restored, we may reasonably expect the appearance of the catamenial secretion. On no account should you have recourse to stimulating emmenagogues, as the cause of the non-appearance of the flow is the result of an action of the menstrual vessels almost amounting to inflammation.

After the use of the antiphlogistic remedies recommended to you, the hip-bath will be of service.

Suppression of the Menstrual Flow. — The catamenial discharge is sometimes suddenly stopped *during its flow;* at other times causes which operate during the intervals prevent its occurrence;

or, thirdly, it may be arrested in consequence of a debilitated state of system similar to that already described as the cause of *emansio mensium*, and to these cases the term adult chlorosis has been not improperly applied. The menses may be *suddenly* suppressed by any powerful mental emotion, such as excessive joy, grief, terror, &c. In the greater number of cases, however, the interruption of the secretion is referable to external causes, especially exposure to cold in combination with moisture; it is well known that if a female get wet in the feet during her monthly periods, suppression is a very common occurrence, and hence the reason why servant girls, whose avocations subject them to such exposure, are the most frequent sufferers from this affection. From whatever cause it may have been produced, its attendant symptoms are usually of an active or inflammatory character; sharp pains are felt in the hips, loins, and region of the uterus; you will observe symptoms of vascular activity, marked by increased frequency and force of the pulse; determination of blood to the head is also indicated by throbbing pains, attended with powerful pulsations of the carotid and temporal arteries. There is heat and dryness of skin, the tongue is dry and coated, the urine small in quantity and high coloured; in short, the secretions generally are diminished. There is palpitation of the heart, a sensation of choking in the throat (globus hystericus), with other symptoms of an hysterical nature. The cerebral symptoms occasionally run so high as to produce temporary derangement; these instances, however, are not often met with. Nausea and vomiting sometimes attend this variety of suppressed catamenial secretion.

Treatment of Sudden Suppression. — From the symptoms attendant upon this disorder, which have been enumerated, you will be prepared in some degree for its treatment; this must be of the antiphlogistic kind. Venesection is the first remedy required. The quantity of blood drawn away to be regulated by the violence of the febrile symptoms on the one hand, and by the general constitution of the patient on the other. If she be of full habit, and rigid muscular fibre, from 12 to 16 ounces of blood may be taken from the arm: this operation to be repeated or not according to circumstances. If the action of the heart and arteries be somewhat reduced, but not to a sufficient degree, a smaller bleeding will be necessary, either from the arm, or by the application of cupping-glasses to the loins. The circulation must also be lowered by exhibiting saline purgatives freely. Another mode of giving relief is by the use of medicines, which determine to the skin, such as the following: — Solution of acetate of ammonia, ʒiij; syrup of poppies, ʒss; solution of tartar emetic, ♏ xxv. One ounce every four hours. The warm bath is also serviceable. Great care should be taken, on the one hand, to avoid exposure to cold; whilst we should recollect, on the other hand, that excessive heat tends to increase vascular action, and is, therefore, positively injurious; a mean temperature is, therefore, to be preferred; but little

nutriment, and no stimulating beverage, should be allowed. Should the obstruction occur at the *commencement* of a monthly period, and the treatment described be promptly put into practice, the discharge *may be* reproduced. More frequently it does not reappear until the next month, and where the case has been neglected, several periods will pass over before the constitution is restored to that healthy condition which will enable the uterus to perform its functions with regularity.

Where menstruation is in this way suppressed, you occasionally have a vicarious discharge of blood from other organs of the body, this may occur in the form of epistaxis, hemoptysis, hematemesis, or there may be blood effused by the rectum. The danger under these circumstances will necessarily depend upon the degree of the hemorrhage. If it be but trifling, the *general* plan of treatment is to be persisted in, without reference to this particular symptom.

Should month after month pass away without the restoration of the secretion, you will most probably find that other organs besides the uterus are in fault, and these, therefore, will require your chief consideration.

The menstrual discharge may be suppressed, not *during its flow* in the sudden manner just described; but as the result of some cause operating during the interval. During pregnancy, you know, for example, the flow is naturally suppressed. This condition will be known by its attendant symptoms, and, not being a state of disease, will not be further noticed at this time.

When the general health is suffering from any debilitating cause, the evacuation is frequently absent; and here I would use the words of the justly celebrated Burns, in his work on the Principles of Midwifery. He observes, "the effect is often mistaken for the cause, the bad health being attributed to the absence of the menses; and much harm is frequently done by the administration of stimulating medicines. In them the irregularity of the menses is symptomatic, and generally indicates considerable debility, induced perhaps by great fatigue, bad diet, loss of blood or long continued serous discharge, hectic fever, or dyspepsia."

Do not, however, imagine that I am claiming for the menstruating membrane of the womb a *total exemption from disease.* It is doubtless sometimes the original seat of the disorder which interferes with its function. Debility of this part is occasionally induced by too frequent sexual intercourse. Again, it is liable to a peculiar action of its vessels, similar to that which takes place in the vagina in leucorrhœa, and then, instead of the regular monthly flow, a white mucous discharge is constantly exuding, or there may be chronic inflammation of the membrane itself. In all these cases *suppressio mensium* is very obviously the direct effect produced, and to the uterus itself the remedies must be applied.

The primary indications in the cure of this form of the disorder is, however, still the same, viz., not so much to force the evacuation, as to alter that morbid action of vessels to which suppres-

sion owes its origin. Great care is required in investigating the state of health, in general, as well as the particular condition of the uterus. Having determined the seat of the disorder, your next inquiry will be to ascertain whether there be general or local plethora, or general or local debility, and according to the existence of the one or the other of these states, your selection of remedies will depend whether, for instance, you treat your patient upon the tonic or antiphlogistic plan. I entertain a very decided opinion that those medicines called emmenagogues, would scarcely, perhaps never, be employed, if the symptoms of the disorder were more generally traced to their cause. I must not dismiss this subject without saying a few words regarding the use of mercury, a remedy so frequently noticed, and so highly extolled as an emmenagogue. To the use of mercurials, under proper restrictions, and in *certain cases*, that is to say, when they are required for the relief of the disordered condition, either of the uterus or any other organ, there can be no objection. It sometimes produces a beneficial effect, but it does so indirectly; in other words, it does not act as a direct stimulus to the womb, but it alters the morbid action of its vessels, and thus accomplishes the grand primary indication before mentioned. A great variety of remedies have been from time to time recommended as local stimulants; but I shall not detain you by a consideration of these separately, as a long and tolerably extensive practice in these cases fully warrants me in expressing my disapprobation of this method of treatment.

The absence of the catamenia is not always the result of disordered action; it has been before noticed as one of the common consequences of pregnancy. The flow is also very generally suspended during the period of lactation. Still we occasionally find women of plethoric habits who menstruate whilst nursing; others, again, are said to continue "regular" whilst pregnant. If the discharge in these latter cases be particularly noticed, you will find it commonly consists of blood, often passing away in clots (a certain proof that it is not the menstrual secretion), the times of its appearance irregular, and by no means corresponding to the menstrual periods. I do not go the length of affirming that pregnant women have *never* menstruated, although, from the changes which the uterus then undergoes, it is difficult to explain the fact. Dr. Blundell, in his lectures, relates a case in which he noticed this occurrence. I stated to you, in a former lecture, that iron, in various forms, was to be administered in cases of amenorrhœa. Whenever you prescribe this metal, your patient should be apprised of its effect upon the colour of the alvine evacuations, or she would probably be alarmed at finding them *perfectly black*, an effect, you are aware, which is always sooner or later produced.

MENORRHAGIA.

The literal meaning of the word menorrhagia is, a bursting forth of the menstrual discharge; in other words, an immoderate flow

of the menses; but in the general acceptation of the term it is used much more extensively, for it is applied to almost every coloured discharge from the womb. It is especially to be noticed, that this appellation is made use of to designate those disorders in which there is no menstrual secretion at all, but where the discharge consists of blood solely: in fact, all sanguineous effusions from the unimpregnated uterus have been described under the name of menorrhagia. Profuse menstruation, in its strictest sense, very rarely occurs, and when present, it is hardly to be considered a disease, but is rather the effect of depletion, and may, therefore, be regarded as Nature's own remedy for the relief of this condition.

There are two distinct forms which this disorder assumes; first, a simply increased quantity of the secretion at its natural and stated periods; or, secondly, there may be no material alteration in the *quantity*, but the periods of recurrence more frequent, two or three weeks only intervening, instead of the lunar month. This state is exceedingly inconvenient to the female; means, therefore, must be had recourse to for the purpose of lessening the quantity of blood, and this is easily effected by small venesections, to be repeated, if necessary, and by an innutritious and spare diet.

The atmosphere in which the patient resides should not be overheated, although care is, on the other hand, required to avoid exposure to cold during the flow, as a sudden check might be induced which would inevitably be followed by unpleasant symptoms. It is proper, also, to advise the patient to place herself in the recumbent position when the time is approaching, and this posture is to be continued throughout the whole period. In forming your judgment in these cases, the *natural* quantity of the secretion, in each individual case, must be taken into the account, or you will be very likely to fall into error. In addition to bleeding and spare diet, moderate purgation should be employed.

In the more common cases of what is called menorrhagia, you will find not only an alteration in the quantity, but in the quality also of the fluid effused, for the discharge consists of pure blood, instead of the menstrual secretion, and hence might with greater propriety be called hemorrhage from the unimpregnated womb. These irruptions of blood take place in the two opposite conditions of system, viz., of plethora and inanition, from which the division into active and passive menorrhagia, the former connected with, if not depending upon, an increase in the force, as well as the frequency of the arterial circulation, the latter resulting from extreme weakness of vessels, appearing indeed to depend upon congestion, and a retarded motion of the blood. Before entering at large upon the subject, I must remind you of the diagnostic mark between blood and the proper menstrual flow, and this you will recollect is a very simple one. If it be the former (blood), it will coagulate, either passing away in clots, or stiffening the napkins, which imbibe it. In all cases of doubt, carefully examine what has passed away, and you will find no difficulty in distinguishing the one from the other, as the proper menstruous secretion never coagulates.

LECTURE IV.

Active menorrhagia; symptoms and treatment. — Passive menorrhagia; symptoms and treatment. — Case where the plug was used. — Dr. Haighton's plan. — Transfusion of blood. — Menorrhagia repeatedly attacks women. — Sometimes results from diseased liver, or from actual disease of womb.

ACTIVE MENORRHAGIA.

I MENTIONED to you, at the conclusion of our last lecture, that there were two forms of uterine hemorrhage, designated by the term menorrhagia, viz., the active and the passive, and I now call your attention to the former variety. The approach of active uterine hemorrhage is marked by a sense of general fulness and heat, or by an alternation of sudden flushings with chilliness. You will observe an unusually frequent, harsh, and throbbing pulse; and, in addition to these general symptoms, there are pains in the back and loins indicative of uterine irritation. In the most simple, although it must be confessed not the most common form of the disorder, after these sensations have continued for a longer or shorter period of time, a quantity of florid red blood, apparently arterial, escapes from the uterus, the pains are relieved, and the constitutional symptoms subside.

You must not, however, expect, in the larger number of cases, such sudden terminations of this affection. You will, on visiting your patient, find her still labouring under febrile excitement, notwithstanding the discharge of blood; the pulse is hard and frequent, there is pain in the head, the skin hot and dry, the tongue furred, and the lips parched; the flow, also, may have produced no alleviation, as regards the uterine uneasiness. I have already told you, that the cause of this affection is to be attributed to increased excitement of the heart and arteries; your first indication, then, is to diminish vascular action generally. This may, in the first instance (provided you are called in the early stage), be effected by removing blood from the arm in the usual way, proportioning the quantity to the necessity of each individual case. Great caution should be exercised in determining the extent to which this remedy should be carried; do not forget, that there is hemorrhage going on which it may be difficult to arrest; on this account I scarcely ever, in my own practice, recommend a second venesection.

It is absolutely necessary that the recumbent posture be strictly enforced, and stimuli of every kind, whether of a general or local nature, be scrupulously avoided. Accumulations of a feculent matter in the rectum will greatly aggravate the disorder, whether it be of the active or the passive kind; you will, therefore, see the propriety of maintaining a free state of the bowels; the mildest laxatives are the most proper, such as castor oil, a combination of rhubarb with sulphate of potassæ, or the use of an enema of common gruel with salt; the latter, in most instances, is to be preferred,

care being taken that the fluid is not used too warm. Irritating purgatives are very improper, as their operation has a direct tendency to increase the flow of blood. After the use of blood-letting and laxatives, depressing medicines are the most proper, and I know not that you can select one which will answer your purpose better than nitrate of potash; some give the preference to digitalis, or the tartar emetic, but these are not such manageable remedies as the potash, and when we can secure the same good effects by our milder medicines, we are surely justified in making choice of them: from twelve to twenty grains of the nitrate may be given every few hours; the stomach will retain the larger dose, if given in a state of great dilution, say, in a teacupful of barley-water. Its effect is *sensibly* so diminish the frequency and force of the pulse, producing, at the same time, a feeling of nausea.

By this plan the activity of the constitutional symptoms will be soon subdued; and, should the hemorrhage continue, topical remedies, directed to the uterus itself, will be required, the most common and most effective of which is, the application of cloths, wetted with the coldest water, to the vulva, perineum, and pubic region; I have seen great benefit derived from a bladder, containing pounded ice, placed in the latter situation. Do not thoughtlessly employ your cold applications, for there is no part of the treatment which requires a greater degree of circumspection; if used when febrile or inflammatory symptoms are present, no good, but harm would result; your first indication in the treatment of this disorder being, as I have already told you, not so much to stop the bleeding by any direct means as to lower the action of the heart and arteries; your object, in short, is the removal of the *cause*, and not the mere relief of the *symptoms*. The diet must necessarily be spare, and, as common beverage, iced lemonade, barley-water with acid, or toast-water, are the proper articles; fermented or spirituous drinks must not be allowed. Diaphoretics have been recommended by some, with a view of keeping up the action of the cutaneous vessels; no reliance can be placed upon this class of remedies. Mercury has also had its advocates, but its utility may be fairly doubted, especially during the continuance of the active symptoms. Menorrhagia cannot long continue in its active form, symptoms presently make their appearance, characterising

PASSIVE MENORRHAGIA.

This is not always preceded by active hemorrhage. In weakly, irritable, and delicate habits, it may have been passive from its commencement. The patient's situation is here much more alarming, and the case assumes a very formidable character, if the bleeding be not speedily arrested. The symptoms, as might be expected, are totally different, and the plan of treatment the reverse of what has been recommended in the active form of the complaint.

With this hemorrhage there is a rapid reduction of the little

strength previously existing; the countenance is pallid, and, in some cases, assumes a bloodless appearance; the pulse hurried and feeble; the extremities, and sometimes the general surface of the body, cold; there is weight and pain in the head, particularly over the eyebrows and forehead; a distressing sensation of faintness and giddiness, and occasionally nausea and vomiting; laborious respiration is a frequent attendant on the more severe and dangerous forms of passive menorrhagia.

I mentioned to you, that the blood which passed away in active hemorrhage was of a florid red colour; here, on the contrary, it is dark-coloured, apparently venous. The symptoms enumerated occur in a more slight or a more aggravated form, and hence the disease may require for its relief a more or less energetic method of treatment. In the mildest variety, however, the recumbent position must be submitted to at once, for every remedy will fail unless the patient keep herself perfectly quiet. If the bowels be confined, a common enema should be prescribed, to be used nearly cold. Great benefit will be experienced from the exhibition of astringent tonics, the mineral acids, for example, combined with vegetable bitters, such as calumba, gentian, quina. If your patient's taste be somewhat fastidious, and you wish to please her palate, order her the infusion of roses, with an additional proportion of acid, some syrup, and about a drachm of tincture of kino. This is a very agreeable draught, and, in many instances, has proved a medicine of no mean efficacy, and I should recommend it where the stomach is irritable. In my own practice I have seen more advantage from the use of the tincture of the muriate of iron, in doses of from fifteen to twenty minims every four hours, than from any other *single* remedy. It must, nevertheless, be admitted, that in many cases you will be obliged to try a variety of medicines before the proper one be ascertained, as the same does not agree equally well with every patient.

The milder cases of passive menorrhagia are those in which the application of cold is peculiarly serviceable, provided it be assiduously employed. An ordinary nurse is not to be trusted with this application; it ought to be superintended by the practitioner himself; if he leaves the room, simply *directing* cold to be applied, it is probable, on his next call, he will discover, not a cold napkin, but a warm fomentation to the vulva, in consequence of the nurse having neglected its frequent renewal. It is scarcely necessary to state, that, in the more severe degrees of the affections, where, for example, there is general coldness of the surface, these applications must not be had recourse to, as the powers of the system would inevitably sink under their use; on the contrary, it is often necessary to apply bottles of hot water to the feet, axillæ, &c., and in some cases to envelope the whole body in warm flannels; more powerful internal remedies will also be needed, and of these the superacetate of lead occupies the first place, its power as a styptic has been long known, from whatever part of the body the

blood may be flowing; but as griping and colicky pains are so frequently produced by its use, we generally exhibit opium at the same time: to guard against this effect, superacetate of lead, half a grain, opium, quarter to half a grain, may be exhibited every two hours; after four pills have been taken, it is better to wait awhile, and should your patient complain of pains in the abdomen, you must discontinue the remedy; if there be no such unpleasant symptoms, after the lapse of three or four hours, the same number of pills may be again prescribed, watching the symptoms closely, in order that it may be immediately omitted, should circumstances require it. Under these restrictions, and with the exercise of proper care, the superacetate is invaluable, although we must acknowledge it to be a dangerous remedy, if used imprudently.

I know not whether vegetable acids would be productive of more advantage than mineral, never having tried their efficacy. My thoughts have been directed to this subject from a fact related to me by one of my patients; she stated that she was always able to produce a temporary suspension of the menstrual discharge by taking a "gill of common vinegar," so that if she wished to pass the evening from home, during the catamenial period, her practice was to drink the vinegar, and this, according to her own statement, had the invariable effect of stopping the discharge until the following morning, when it regularly and constantly returned. The secale cornutum is supposed by many to operate beneficially in restraining these hemorrhages, and although much reliance cannot be safely placed upon it, yet it deserves a trial; half a drachm of the essence, as prepared by Battley, is a fair average dose, mixed with a cup of gruel, to which a small quantity of ardent spirit has been added; this potion may be repeated every six or eight hours. The secale should not be trusted to but as an adjuvant, and ought not to supersede others whose effects are more decided.

Should the hemorrhage still continue, something further must be attempted; and first I would recommend the use of the plug; strips of linen, either dry, or wetted with an astringent solution, are gradually and gently to be insinuated into the vagina until the cavity is completely filled up; the obvious effect of this is to detain the blood within the uterus, where it will coagulate, and, by forming a clot around the orifice of the bleeding vessels, must, at least for a time, prevent any further effusion. If the plug be too soon removed, or the female be suffered to move about, the little temporary barrier thus formed will be dislodged, and the hemorrhage will recur.

There are sometimes so much tenderness and irritability of the genitals and neighbouring parts, that the application cannot be borne for a sufficient length of time, the female complaining of pain, with a bearing-down sensation, and frequent desire to pass water and to empty her bowels; here the plan of proceeding is plain, you must remove the plug; where no such inconvenience is experienced, you will do well to allow it to remain for three or

four days, and should there be, on its removal, any indications of returning hemorrhage, a clean one should be at once introduced.

One of the most severe cases of this kind which ever fell under my own immediate notice, was one which I attended in conjunction with one of my pupils; here the plug proved of permanent benefit, after other measures had failed; the quantity of blood lost by this lady was enormous, very nearly, if not quite, equal to that which now and then bursts forth from the puerperal womb; on one occasion the bed was literally soaked with blood; it was long before this patient was restored to perfect health.

Another plan was strongly recommended by the late Dr. Haighton, in his invaluable lectures on midwifery, viz., the injection of a styptic solution into the cavity of the womb itself: this may easily be effected by means of an elastic gum bottle, to which a curved pipe has been attached; the patient is to be placed on her left side, and the extremity of the tube introduced about three-quarters of an inch within the os uteri; on pressure being made upon the elastic bottle, the fluid will, of necessity, be diffused over the whole internal surface of the uterus, and by coming into contact with the bleeding vessels, will produce coagulation of the blood around, and, probably, to a certain extent, *within* them, and thus prevent, for a time, any further hemorrhage. The liquid recommended by Dr. Haighton for this purpose, consists of a solution of sulphate of iron in an infusion of strong green tea; other substances will answer your purpose as well, viz., common alum, sulphate of zinc, or sulphate of copper, dissolved in a decoction of oak bark; the choice of the styptic being left to the discretion of the practitioner. About half an ounce of such liquid may be safely injected three or four times in 24 hours. When you have made up your mind to this mode of proceeding, I would recommend you to superintend it yourselves, as it requires some little anatomical knowledge to pass the pipe through the mouth of the uterus. Dr. H. used to say that he believed he had saved many lives by his injections.

A very nourishing diet is essentially required in these cases, or the patient will soon sink below the possibility of recovery. Those articles are the most proper which contain the largest proportion of nutriment in the smallest bulk, as the stomach will not retain much at a time. This organ, in common with others, suffers from the debilitating effects of the hemorrhage, and, consequently, its digestive powers are proportionally decreased. Stimulants are also proper; ale, stout, or wine may be allowed, as best suits the inclination of the patient. The common form in which I administer nourishment is, the yolk of a new-laid egg beaten up with a small quantity of warm water, a table-spoonful of brandy, with sugar and nutmeg *ad libitum;* this is a most nutritious as well as an agreeable compound, and will often be retained by the stomach when everything else has been rejected; about half an ounce of this mixture may be frequently given until two or three eggs have

been taken; some prefer beef-tea, broths, or the animal jellies, all of which are beneficial; and as soon as the stomach is a little roused from its torpor solid food is admissible.

Change of air will contribute greatly to the restoration of health, when convalescence has sufficiently advanced, and then also the daily use of the bidet is particularly useful.

Would the transfusion of healthy hot blood be of service in the more extreme forms of menorrhagia? I am inclined to give my opinion in the affirmative; for, in the dissection of those who have died from this cause, no organic change has been discovered in the womb. The organ has been seen to be enlarged, and the orifices of the small vessels ramifying on its lining membrane more patulous than in their natural and healthy condition. I am well aware of the objection which has been raised against this operation, and which has been often reiterated in nearly these words, or at any rate to this effect: — "What is the use of transfusion, whilst the drain is still going on? As fast as you put blood into the arm it would escape by the orifices of the uterine vessels." Let us examine this objection a little. We readily allow that the extremities of these vessels are sufficiently open to allow the passage of pure blood through them, yet this state is the result of debility, and this debility, be it remembered, occasioned by the loss of the vital fluid. Now, it is by no means inconsistent with sound principle to expect, under these circumstances, that, with an increase of pure, healthy blood, this condition of general exhaustion will be relieved, and such a degree of tonicity given to the muscular fibres of the uterus, as well as to its capillary vessels, as to produce a certain degree of contraction, which would be sufficient to avert the impending danger.

Do not for an instant suppose I am recommending transfusion as one of your *common* remedial means, where due attention has been paid, it will be *very rarely indeed* either necessary or proper; but the extreme case may occur, and our art is confessedly imperfect, if we have not a remedy for *this* case, as well as those which are attended with less danger. So far as regards myself, I should feel that I had not performed my duty if I had suffered a patient who had died of hemorrhage without having proposed the operation, especially as I can perceive no practical objection, being fully persuaded, when carefully performed, it is an operation which cannot injure, but, on the other hand, well calculated to be of immense benefit. I shall, however, have another opportunity of examining the merits of transfusion, and, therefore, for the present, shall dismiss the subject.

Some women are the subjects of menorrhagia every month, so that as soon as, and in some cases before, they have recovered from one attack, they are, unfortunately, called upon to suffer another. It is here very desirable to employ those remedies in the interval which are likely to prevent a recurrence; the circumstances necessary to be attended to are, first, the state of the constitution;

secondly, the nature of the affection, whether active or passive; and, thirdly, the exciting cause. These preliminaries having been ascertained, the proper treatment will suggest itself to the mind of the practitioner. The indications are to build up the constitution where it is weakly, and to depress if there be too much power in the circulatory system.

In long-continued passive hemorrhages, the liver is a viscus, into whose condition you should carefully examine, as, next to the heart itself, there is, perhaps, no organ in the body the healthy state of which is so necessary to maintain the balance of the circulation; if there be hepatic derangement, the smaller doses of mercury, recommended in a former lecture, should be exhibited.

I have, lastly, to observe, that discharges of blood from the womb are not always the result of mere functional disorder; they are the never-failing attendants on many organic diseases. Hemorrhage takes place in polypus, hydatids, fungoid disease, cauliflower excrescence, malignant ulcer, carcinoma, &c. Some females, again, lose considerable quantities of blood during pregnancy. I have a patient who, for the first four months, has repeated floodings; these cases are easily distinguished by their appropriate signs. In every instance of protracted bleeding from the womb, a minute examination, per vaginam, must be made, that you may satisfactorily ascertain its nature and its cause, for incalculable mischief would be the result of erroneous opinions in this respect.

LECTURE V.

Dysmenorrhœa, with membranous formation; symptoms.—Dr. Denman's opinion that the disease necessarily produces sterility incorrect. — Pregnancy sometimes the means of cure; danger of confounding the symptoms with miscarriage. —Opinion to be given under such circumstances. — Treatment of the disease. — Opinion of Dr. M'Intosh. — Dysmenorrhœa without membrane; symptoms and treatment. — Cessation of menstruation. — Period various. — Considered by women as a critical time. — Erroneous opinions of old authors; treatment required; sometimes mistaken for pregnancy. — Means of diagnosis. — Sterility; its causes; various opinions, generally the result of constitutional defect.

DYSMENORRHŒA.

The last variety of disordered menstruation which I have to bring before your notice, is one which is very common, and also very harassing to a female, it is called dysmenorrhœa (*difficult* or *painful* menstruation). The subject of this malady menstruates at the regular and proper periods, but at the same time experiences an intensity of pain, scarcely exceeded in amount by the actual parturient efforts of the womb, at the time of labour. Dr. Denman

says, and says truly, "The pain with which some women menstruate, at each period, is sufficient to render a great part of their lives miserable." The excitement, attendant upon this state of suffering, has in some women, produced actual delirium. The evacuation, although regular in its recurrence, is, in some cases, very deficient in quantity; and, indeed, there is sometimes no proper menstrual secretion, but, in its stead, a tough, thick membrane, resembling the tunica decidua of pregnancy, is discharged, the uterus acting forcibly as in labour: a small quantity of blood generally attends its expulsion. The membranous portions vary greatly in size, being sometimes large, at others mere shreds, but they will be found to present the same general appearances; one surface is smooth, whilst the other is rough, and shaggy. Dr. Denman, who paid attention to this variety of dysmenorrhœa, asserts, that "No woman, in the habit of forming this membrane, has been known to conceive whilst such habit exists." This opinion is not correct; many well-authenticated cases, proving the contrary, have occurred: two or three have fallen under my immediate notice. Where impregnation takes place, and especially if the female should proceed to the full term of utero-gestation, a radical cure may, with some degree of confidence, be anticipated, the process of child bearing effecting so complete a change of action in the vessels of the menstruating membrane, that they afterwards perform their office with regularity and without pain. If, therefore, conception could, with any degree of certainty be calculated upon, there would be no objection, but, on the contrary, everything to encourage a recommendation which has been considered by many as a likely method to obtain a cure, viz., that the female should alter her sexual condition. It happens, however, unfortunately, that women suffering under dysmenorrhœa, attended with membranous formations, do not conceive so readily as those whose monthly secretion is regularly and properly performed; still you will find the exceptions to this general rule are sufficiently numerous to induce you to pause before pronouncing irregular menstruation to be an *obstacle* to marriage.

From the peculiar symptoms attending this form of the disorder, viz., the expulsion of membrane similar to the decidual, the bearing down pains, the discharge of blood, &c., you are liable to the mistake of supposing that the female has miscarried. If the subject be a married lady, the error will be of no consequence; but should she be unmarried, suspicions, the most unjust, unfounded, and fatally injurious to her reputation, will be excited, if not set at rest by the deliberate opinion of the practitioner in attendance. Now, it is very difficult, if not, in some instances, impossible, to distinguish the one membrane from the other; the general character of the female should be taken into the account with various other circumstances, which cannot well be brought before you in a lecture, but which will be suggested by your own judgment. I am persuaded, that in a very large majority of cases, it would be

better for you to quiet the suspicions which may have been aroused, and to treat the case as dysmenorrhœa, where no trace of a fœtus is discernible.

Treatment. — So far as regards the cure of this affection, we must acknowledge the treatment to be very unsatisfactory, but *relief* may generally be obtained *at the time*, and, by a repetition of the same palliative means at each successive monthly period, the intense pain may be prevented, and the female rendered much more comfortable than she would otherwise have been. Anodynes are the only class of medicines upon which much reliance can be placed, and of these opium is the most certain, and should always be selected, unless contra-indicated by some peculiar idiosyncracy of constitution; if combined with a diaphoretic, the effect will be more decided; the following is my usual draught: —

Solution of acet. of ammonia, ℥iij;
Syrup of poppies, ℥j;
Tinct. of opium, drops x to xv;
Camphor mixture, ℥j.

A draught every 3d, 4th, or 5th hour; at night, mercury with chalk, grs. v.; compound ipecac. powder, gr. x. to gr. xv. The state of the alimentary canal must not be lost sight of, as an accumulation of fæces in the rectum aggravates every disorder of the womb. Should opium disagree, hyoseyamus may be tried; a draught, composed of tinct. of hyoscy. ℥j; comp. sp. of ether, ♏xx; syrup of poppies ℥j; camphor mixture, ℥jss, will sometimes afford relief; you may likewise employ the hip-bath, followed by friction, with anodyne embrocations over the lumbar and uterine regions, but much confidence cannot safely be placed upon these means.

In some cases the formation of this membrane may be attributed to an action of the vessels fairly amounting to inflammation, and here the antiphlogistic treatment, to a certain extent, will be necessary. Cupping from the loins, followed by the application of ten or twelve leeches to the vulva, should be immediately had recourse to; you relieve pain afterwards, by employing the anodyne plan before recommended. During the intervals of menstruation, a slight mercurial course will be serviceable as tending to alter the action of the menstrual vessels. Again, dysmenorrhœa may be the result of a rheumatic affection of the womb; this is usually accompanied with the signs of rheumatism in other parts of the body, the uterus not being the only part affected. Your remedial plan is here to be directed to the general disorder, and those medicines exhibited as are known to relieve rheumatic affections; the colchicum, for example, either in the form of wine or the powder; the old tinct. guaiaci. am., has also had its advocates; sometimes the pain seems to proceed from a spasmodic condition of the organ. Opium and the warm bath seldom fail in giving relief in these cases.

Dr. M'Intosh supposes this painful affection to be referable to a thickened state of the os and cervix uteri, by means of which its

orifice becomes narrowed, and in some cases nearly closed; he, consequently, recommends the use of the bougies, for the purpose of dilating these parts. Of this plan, *from personal experience*, I can say nothing; but it seems to me difficult to explain the effect by the cause here attributed to it.

Dysmenorrhœa without membranous formation. — Women sometimes experience great pain at the menstrual periods, quite equal to that already described, but the circumstances attending the discharge vary. There is no deficiency, but, on the contrary, rather an augmentation of the flow, and if this be examined, you will often find that clots of large size are passing away, showing that the effusion is in great measure sanguineous. So far as my own observation has extended, the subjects of this variety of dysmenorrhœa are weakly and delicate, of an easily excitable, nervous or hysterical temperament; great prostration of strength is experienced at the time; the extremities, and sometimes the body, generally are of an icy coldness; the pulse feeble, though quick; the countenance is sallow, and its expression anxious. The treatment of these cases is much more satisfactory than that of the previous variety; you will seldom fail in affording complete relief, if the patients will adhere to the plan proposed to them. The female should be confined to her *bed*, as nothing tends more to lessen if not altogether subdue her pains than external warmth: if she still remains cold, a glass of weak and hot gin and water is to be allowed her, and when reaction has taken place, the hyoscyamus, ether, and camphor mixture before prescribed, in some instances of membranous menstruation, with or without the addition of opium, as circumstances may require, will be found serviceable. This form of dysmenorrhœa does not interfere with conception, and it often happens that pregnancy cures the disorder, so that after marriage you frequently hear no more of the complaint, the action of the vessels of the uterus, as before stated, being so completely altered by the process of gestation.

Whilst you are attending to the uterus itself, at the period of menstruation, it is important for you not to neglect the general constitution during the intervals. Examine into its state, whether plethoric or debilitated; if the former, use depressing medicines, with low diet; if the latter, and this will generally be the case, you must employ tonics and a generous diet. In every case the bowels should be strictly attended to, and all sources of irritation avoided as the period is approaching; the recumbent position to be for the most part enjoined, and all active exertion forbidden.

In conclusion, I would advise you to be exceedingly careful in giving your prognosis, I mean as regards a *cure;* in many instances you can only relieve; the disorder, however, in these cases, appearing at last to wear itself out.

CESSATION OF MENSTRUATION ("TURN OF LIFE") — ("CRITICAL PERIOD").

I have before observed, that the time when the menstrual discharge ceases is regulated by its first appearance, commonly continuing for the space of thirty years. Cases are, however, on record, where the catamenial function has regularly continued for a much longer period, the female, for example, begins to menstruate about her fifteenth year, but does not cease until the fiftieth, fifty-fifth, and in some very rare instances not until the sixtieth year; but it is generally found that about the forty-fifth year indications are experienced of the coming event. In some rare cases the discharge gradually diminishes, and at length totally disappears without producing any feelings of inconvenience, but this is not common; there are generally irregularities, the discharge sometimes being absent for six or seven weeks, and then appearing either more copiously than natural, or in deficient quantities. Again, you may, on the other hand, have the discharge not only profuse, but frequently repeated, and often *sanguineous;* in truth, in almost every case where there is profuse discharge, blood is effused; this, you will recollect, is easily distinguished by its power of coagulation. This period is usually designated by women "the dodging time," an epithet which characterises their condition with tolerable exactness. There is often at this time a considerable degree of constitutional irritation, with an increased determination of blood to the *head*, or to some other part of the body. If you are consulted by a female at this period, you will see the great necessity of directing attention not to the uterus alone, but to the state of the constitution at large. Most women look upon the cessation of menstruation as a critical time, which they call "the turn of life," and although their fears are often groundless, for it is not reasonable to suppose that the cessation of this function (which is as natural as its commencement) should invariably and of necessity give rise to disease, yet it is an unquestionable fact, that if there be a morbid disposition in any part of the body, more especially should it exist in the womb or in the breast, there will be a more rapid progress at *this*, than at any previous period. The older authors attempted to explain this circumstance by the supposition that the "menstruous blood" possessed qualities of a peculiar noxious quality, and, therefore, very naturally considered its retention to be the cause of disease in some part of the body. The opinion is perfectly erroneous, and the true explanation of the reason why we so frequently witness an advance of disease at this time is simply this, that the constitution, or the parts disposed to take on morbid action, are not now, as heretofore, relieved by the local evacuation. If, then, there be symptoms of uterine or any other disorder, the consequences may be most serious if they be not promptly attended to. Are there not many cases of cancer uteri which we may fairly ascribe to

neglect at this important period? Females at this time frequently complain of great irritation in the pelvis generally, the uterus, bladder, and rectum being equally involved; the symptoms complained of, are a bearing down sensation, tenesmus, often described as a "forcing backwards," frequent inclination to pass urine, together with heat and smarting at the orifice of the urethra; the vagina is also in a tender condition, an examination producing great pain. This state of parts is effectually relieved by the application of a few leeches to the vulva, the use of warm fomentations and injections, with the internal exhibition of an alkaline laxative. My favourite combination is the following: —

Sulphate of potass, ℈j to ʒss.
Solution of potass, ♏xv.
Tincture of hyoscyamus, ʒss.
Peppermint water ʒxj. Thrice a-day.

Where there is much irritability of the general system, sleep may be procured by the use of a full opiate at bed-time. In females of strong and plethoric habits, especially where there are marks of cerebral congestion, blood must be taken in larger quantities, either from the nape of the neck by cupping, or by venesection from the arm, and it will probably be necessary to repeat these means of lowering the circulation periodically, for a few months, allowing a four weeks' interval to elapse between each bleeding. Free purging is also required, and a very spare diet; in short, the antiphlogistic regimen should be enjoined in its full extent. Hepatic and dyspeptic disorders are by no means uncommon at this period, and require the same treatment as at other times. From the notion already referred to, that the cessation of menstruation necessarily produced disease, some have most injudiciously recommended the use of stimulating emmenagogues. I shall not insult your common sense by attempting to prove the absurdity of endeavouring to keep up a discharge, which nature intends should altogether cease, considering it too obvious to require more than a passing notice. Should the individual be in perfect health without any tendency to disease, she will suffer no particular inconvenience, unless we consider the increase of size which then takes place to be such, and really in some persons an increase in the adipose deposite occurs to a most uncomfortable degree. A tympanitic distension of the abdomen happening at the same time has often deceived the patient, she herself imagining that she was pregnant, an error for the rectification of which you will probably be but little thanked. "Most women," as Dr. Haighton (I think) used to observe, "had much rather fancy themselves with child than believe they are approaching that age when such an occurrence will be beyond the bounds of possibility." The medical attendant cannot be long deceived, for the usual signs marking the occurrence of pregnancy are absent, the abdomen enlarges *generally*, and feels soft and flabby, there is no protrusion of the umbilicus; if motion be felt,

and this is often produced by flatulence, it will be experieneed, not in the region of the uterus *alone*, but sometimes in one position, sometimes in another; there is a variation also in her size. I shall not now enlarge upon this subject, as we shall hereafter have to inquire more minutely into "the signs of pregnaney."

STERILITY, OR BARRENNESS.

Various opinions have been entertained respecting the causes of sterility. They may be divided into two sets, the organie and the funetional. Under the former head (organic causes) we may notice imperfect development of the uterus or ovaries, and in some rare instanees their entire absenee; where these deficieneies exist, the changes deseribed to you in a former lecture as eharacterising the age of puberty do not oecur, and, as I have already observed, there is no menstrual flow. Obliteration of the fallopian tubes sometimes oeeurs, either as an original malformation, or as the result of inflammation, and where this happens, that aecess of the male semen to the ovarian vesiele whieh is neeessary for the process of eonception is unavoidably prevented, and barrenness is the result. It is believed by some that too frequent sexual intercourse may produee this elosure of the tube by inducing inflammatory action, and they state this as an explanation of the reason why few prostitutes, eomparatively speaking, eonceive. But we should not hastily infer, that these unfortunate creatures rarely become pregnant, beeause they so seldom proceed to the full period of gestation. I apprehend if we were fully aequainted with their habits, that we should find a great number of miscarriages taking plaee amongst them, their dissolute and unhappy mode of living greatly eondueing to this event. In the general I believe the ease of sterility is not attributable to organic defect, as the generative organs are usually well formed, but to derangement of their funetions, this derangement not unfrequently depending upon constitutional causes. The state of the eatamenial seeretion should be earefully investigated, as this is the index which points out the healthy or unhealthy eondition of the uterus. Should this funetion be deranged, your next inquiry is, whether the womb itself is at fault, or whether there is a generally disturbed state of aetion in other organs of the body. Where the womb appears to be the prineipal seat of this disorder, a very mild course of mereury, exhibited with caution, is well ealeulated to alter the morbid action of the vessels of the menstruating membrane, using at the same time a tepid sea-water bath. As there is in most eases debility of system, conjoined with, if not produeing, faulty uterine aetion, the most eondensed form of tonics will be required, and, indeed, in a great majority of eases, (the organs being perfeet,) attention to the general health is the only probable method of removing this eondition. I may lastly observe, that the uterine system may be aeted upon by the semen of one person, and not of another. I recollect

a case which strikingly exemplifies this fact; a female was married at 21, and lived with her husband for twenty years, but had no child. At 41 she was left a widow, and soon afterwards married again, and was delivered within the year of a healthy, full-grown infant. I would just say in concluding this subject, that very fat women do not conceive so readily as those of spare make; I do not mean to say that obesity in itself produces barrenness, but I cannot help reminding you of the well-known fact, that a defective condition of the ovary, as also its entire absence, is always attended by large deposits of adipose substance.

LECTURE VI.

DISEASES OF THE UNIMPREGNATED WOMB.

Diseases of the womb. — General observations. — Inflammation of the substance of the womb; symptoms; the practitioner seldom consulted sufficiently early. — Causes of hysteritis; treatment depends upon the state of the general system; enlargement sometimes the consequence of this inflammation. — Vaginal examination. — Inflammation of the os and cervix uteri; symptoms; examination necessary; treatment; occasional consequences of the disease. — Thickening of the os uteri; treatment. — Ulceration of the os uteri. — Formation of abscesses around the os uteri; treatment.

Although of late years a greater degree of attention has been paid to the diseases of the uterus, yet that attention has not been commensurate with their importance, for we find even now, in many cases referred to us, that the treatment has not been based upon sound practical knowledge; the practitioner has too often been content with attending to symptoms without tracing them to their source; this is, as regards uterine disorders, peculiarly unfortunate, for it often happens that very different affections of the organ are characterised by the same external symptoms; take, for example, discharges of blood or of mucus. Again, you will find that uterine pains, from whatever cause they may proceed, have the same general character; they commence at the back, extend forwards through the pelvis, and descend to the upper and inner part of the thigh. Whenever, therefore, I use the expression — "pain in the inner region of the womb," it is this sort of pain I intend to describe.

The uterus is liable to many diseases, various in kind, and differing entirely in their character; their great variety has been very properly referred to the difference of the textures which enter into its anatomical composition. The first I shall describe to you, is —

INFLAMMATION.

The substance of the unimpregnated womb is now and then the seat of inflammatory action: not so frequently, however, as the puerperal womb. The early symptoms of the disorder are somewhat obscure, inasmuch as they are very generally present in many other uterine affections. Uneasiness rather than violent pain is at first experienced in the region of the womb, never wholly remitting, but subject to occasional violent exacerbations; these soon subside, and are not unlike commencing labour pains. But little constitutional disturbance is manifested, the surface of the body remaining cool, the tongue scarcely altered from its natural condition, and the pulsations of the artery at the wrist neither increased in frequency nor in force. From the intimate consent which subsists between the uterus and the stomach, we naturally expect the functions of the latter organ to become deranged, and this is always the case, nausea, with or without vomiting, invariably supervening. This symptom is much more distressing in some patients than in others, as it depends upon peculiarity of constitution on the one hand, and the state of irritability of the organ on the other. The well-known sympathy which exists between the womb and the bladder must be borne in mind, as it satisfactorily explains the reason why females, labouring under this inflammation, have such frequent, I might almost say such constant desire to pass urine: if the water be allowed to accumulate, their sufferings are greatly increased. Just before the period of menstruation, the pain already described becomes greatly aggravated; this effect, doubtless produced by the increased quantity of blood determined to the womb for the purpose of its secretion. After, however, the disorder has continued for a length of time, the uterine function is altogether suspended; a very decided increase of uneasiness *generally* as well as *locally* is then experienced. *Firm* pressure above the symphysis pubis increases the pain; but from the situation of the womb, low in the pelvis, a certain degree can be borne without inconvenience: recollect this circumstance, or you will be likely to commit an error in the diagnosis. You will seldom be consulted at a very early period of the disease, the pain and inconvenience being so trifling as scarcely to attract notice until a considerable time has elapsed; or, if these symptoms be noticed, they are seldom thought serious enough to render medical relief necessary; application, therefore, is not made until the disorder is completely established, and the time passed by when it might have been cured without difficulty. A leucorrhœal discharge, varying in quantity, must be reckoned amongst the earlier symptoms of hysteritis; and where this is profuse it is useful, as tending to allay inflammatory action. The most common cause of the disease is too frequent sexual intercourse; it not unfrequently occurs in newly married females: in these cases the vagina participates in the inflammation to a greater or less degree. I have already stated, that sudden suppression of

the menses is occasionally followed by inflammation, particularly where this arises from the application of cold.

Hysteritis is either of the active or passive kind; and according to the existence of either of these states, so will the symptoms be modified, and a corresponding modification of the treatment be required, although the general plan remains the same. Is inflammation of the womb, when it occurs in the pregnant condition, the cause of those morbid adhesions of the placenta which we meet with in the puerperal womb? I think it likely that adhesive matter, thrown out as a consequence of the inflammatory process, may, with great probability, be referred to as the cause, for we find, in these cases, that an extraordinary degree of pain has been felt in some part of the uterus during gestation.

Treatment. — The treatment (as I have already hinted) of inflammation of the unimpregnated womb, should be regulated by its form, whether acute or chronic, and by the general constitution of the patient, whether she be strong and healthy, with a vigorous state of the circulation, or weakly and debilitated, the circulation being rapid and feeble. It should be remembered, that the uterus is an organ not actually essential to life, and not very sensitive, so that even if the disease should take on the active form, no very serious constitutional disturbance is excited at the commencement. Again, from its small size there can be no great *extent* of inflammation. In very few instances is general bleeding required, but in all, local abstraction of blood is necessary. This may be effected in two ways: either by the application of cupping-glasses to the loins, or of leeches in the immediate neighbourhood of the seat of disease. The greater amount of good is obtained by applying ten or fifteen leeches just within the os externum, and encouraging the oozing of blood from the parts by the use of a tepid bath; this will also prove highly beneficial by its acting as a fomentation; it should, therefore, be used for at least half an hour. In prescribing a repetition of the bleeding, you will be guided partly by its effect upon the disease itself, and partly from the influence it has had upon the female's constitution.

Purging must be employed with caution; two or three evacuations may be procured daily, by the use of any common aperient, but neither this remedy nor bleeding must be carried too far, more especially if the complaint arise in a delicate constitution, which it most frequently does, where much depressing medicine cannot be borne with impunity. A small quantity of any neutral salt, taken every morning fasting, will answer the purpose very well.

Diaphoretics. — Determination to the skin is serviceable as assisting the equalization of the balance of the circulation, and acting upon the old principle of revulsion. For this purpose you prescribe solut. of acetate of ammon., 3 drachms; tartar emetic $\frac{1}{10}$ gr.; syrup of poppies, 1 drachm; camphor mixture, 1 ounce; a draught every four hours. Should there be great irritability, with

feeble vascular action, full doses of hyoscyamus or opium must be given.

Diet. — Whilst you are careful in avoiding the use of a rich and stimulating diet, you will do well not to fall into the opposite extreme; the complaint, even when of the more active form, does not require starvation for its cure; a bland and at the same time a moderately nourishing diet may be allowed.

In this disorder, and, indeed, we may speak generally, for the observation will apply to every other to which the human frame is obnoxious — the degree to which the antiphlogistic plan is to be carried, can alone be judiciously determined by attention to what has been already urged upon you, viz., by observing the peculiarity of the individual's constitution, whether she be robust, and the circulation vigorous, or otherwise. And here let me remind you, that mere frequency of pulse does not at all indicate the propriety of active depletion, but rather the reverse; for we generally find the circulation to be the more rapid in proportion to the degree of debility present in the general system; and if antiphlogistic means were employed in these cases, it is quite clear we must of necessity aggravate the symptoms instead of diminishing them. I have already stated that suppression of the menses is one of the results of long-continued inflammation of the womb, and I mention it again to caution you against the use of stimulating emmenagogues, which, if given with a view of forcing the discharge, must be productive of great if not irreparable mischief, for an increase of inflammation would be the inevitable result. If the malady continue, and appear to be taking on the chronic form, mercury may be administered, but great caution is required with regard to this remedy, as it is apt to produce great irritation in weakly constitutions. The form in which I have been in the habit of using it is the following: — Blue pill, 1 grain; extract of conium, 3 grains, thrice a day; comp. decoct. of sarsap. given at the same time will have a very soothing and beneficial effect, and enable the patient to bear the continued use of mercury longer than if no such remedy were employed. The bitter infusions in some instances may be advantageously substituted for sarsaparilla, and where the system is very much enfeebled, still more powerful tonics will be required. The diet must of course correspond with the general plan of treatment, being more or less generous, according to the particular circumstances of the case. I will only add, that in addition to this plan of treatment, the recumbent position must be kept to.

Complete restoration to health is almost always a very slow process. Many months frequently elapse before the strength is re-established; change of air, particularly removal to the sea-side, and the *tepid* and afterwards the cold bath, are useful, and we might say necessary adjuvants.

We sometimes meet with considerable general enlargement of the substance of the uterus, as a consequence of chronic hysteritis, which in some cases has rapidly diminished after a somewhat

sudden and rather copious discharge of blood: these effusions may be considered as very favourable in every form and degree of the complaint.

Examination per vaginam will generally detect an alteration in the uterus, even in the early stage; it feels larger, fuller, and heavier; the pain will also be increased by the pressure of the finger. This will of course be more readily distinguished by those who are accustomed to examine the unimpregnated womb. One caution, in conclusion. Do not confound the sympathetic affection of the stomach with the original disease; many of our dyspeptic remedies are of a stimulating character, and would do harm in cases of inflammation.

INFLAMMATION OF THE OS AND CERVIX UTERI.

We have hitherto been considering inflammation as affecting the whole substance of the womb, but cases every now and then occur, where the upper parts are perfectly healthy, the disease being confined to the mouth and neck of the organ. The general symptoms very nearly resemble those of hysteritis, described in the former part of the lecture, but they occur in a slighter degree: patients complain, for example, of the same kind of uneasiness in the back and loins, great irritability of the bladder, with derangement of stomach, A dull heavy pain, at the upper part of the vagina, is also complained of, with an uncomfortable bearing-down sensation, this latter feeling often extending to the rectum. A white, opaque, slimy mucous discharge from the vagina is always present, the peculiarity of which will always assist the practitioner in his diagnosis, as it is present in no other variety of uterine disease. I will read to you a very accurate definition of its character, from the work of Sir Charles Clarke, "On the Diseases of Females," a book which ought to be in the library of every medical man, anxious to obtain information upon those subjects on which it treats, for it is clearly the product of experience and observation, not the act of a compiler. "This discharge," he observes, "is opaque, of a perfectly white colour, and it resembles, in consistence, a mixture of starch and water made without heat, or thin cream; it is easily washed from the fingers after an examination, and is capable of being diffused through water, rendering it turbid. A morbid state of the glands of the cervix of the uterus, probably gives rise to this discharge; at least the cases, in which it comes away, are those in which the symptoms are referred to that part; and when pressure is made upon it, the woman experiences considerable pain." In order to judge accurately, it is necessary, as Sir Charles Clarke rightly observes, to make the examination after the female has been for some time perfectly quiet, as the common transparent leucorrhœal discharge will sometimes appear thick and white after exertion; this is owing to a quantity of atmospheric air becoming entangled with it. Mark, however, the distinction

drawn by Sir C. C. : — "Such a mixture of mucus and air will not render the water turbid with which it may be combined, and this forms a distinguishing mark between it and the white mucous discharge." The great difference in the quantity will also assist in the diagnosis between this and the leucorrhœal discharge, the latter often flowing in *large*, whilst the former always occurs in small quantities. After the disease has existed for a lengthened space of time, this *white* discharge is no longer observable, the secretion becomes decidedly purulent, and sometimes streaked with blood, so that, in ordinary cases, we do not perceive the diagnostic discharge, for the female at the beginning of the affection feels no inconvenience, with the exception of trifling pain; this, probably, too little to excite apprehension, or even attention, much less does she think it necessary to send for medical advice. Still, however, on inquiring into the early symptoms, you will be told that this appearance has been observed.

A very careful vaginal examination is necessary before giving an opinion respecting the nature of the complaint. You will feel the os uteri to be tumid, the lips of which communicate to the finger the feeling of œdematous effusion. Pressure, I have already told you, gives a certain degree of pain, though, in many cases, this is not a very urgent symptom. The finger when withdrawn, is sometimes mixed with purulent matter, mingled with blood. The freedom of every part but the os uteri from disease, and the total absence of fœtor, will prevent you from confounding the disease with carcinoma of the uterus. From what has been already said, with regard to the few unpleasant symptoms produced, it is reasonable to believe that many of the cases get well without the medical man being referred to at all; at the same time it must be acknowledged, that the consequences of the disease are occasionally most painful, and, therefore, when the opportunity is afforded, means for arresting the progress of the inflammation, or for removing its effects, ought to be promptly had recourse to. The functions of the uterus are not necessarily interfered with, at any rate until the disease has existed for several months; menstruation and conception appear to take place just as readily as at other times.

Treatment. — If you are fortunate enough to be consulted soon after the commencement of the attack, you will be enabled to subdue it by very simple means, viz., by the observance of a moderately antiphlogistic plan. I have never known it necessary to bleed from the arm; but you will do well in every case to apply leeches to the os externum, or rather *within* the part; some have recommended that they should be inclosed in a tube, and carried up to the inflamed part itself; of this plan I have no practical experience, and should rather recommend you to be content with placing them *near* the seat of disease. The long-continued use of fomentations is advantageous after the bleeding. A warm injection of decoction of poppies, or conium, into the vagina, repeated

every four or five hours, has a remarkably soothing effect: the properties of these *medicated* waters have probably been somewhat overrated, but the faith of the patient will be greater, and hence the plan will be more likely to be persisted in, if something of the kind be recommended in preference to simple warm water. The recumbent position should be strictly preserved, the female not being allowed to sit up until the uneasiness has subsided. Guard against fecal accumulation; this would be injurious on many accounts; at the same time I would observe, that free purging is neither requisite nor proper; a simple laxative, which will act once or twice daily, is all that will be needed.

This, then, is the treatment to be adopted in the more early stages; but if you have not an opportunity of seeing your patient until a later period, after it has, for instance, existed for many months, you will have a much more obstinate complaint to deal with. In consequence of this continuance of the inflammatory process, chronic thickening of the os and cervix uteri takes place; if this condition of the part be not removed by appropriate means, and the female should become pregnant, great and serious obstruction to the passage of the child's head will occur at the time of parturition, in consequence of the difficulty with which the os uteri dilates. I shall not very soon forget an extreme case of this kind which occurred some time since; the patient was attended by my esteemed friend Mr. Doubleday, of Blackfriars-road, in conjunction with myself. The woman's sufferings throughout nearly a whole night were most agonizing; the uterine efforts were frequent and powerful; the head of the child felt as if encircled by a thick ring or cartilage, and was with great difficulty expelled.

Where this thickening is known to exist, you will, from what I have just stated, perceive the importance of paying great attention, in order that its removal may be effected; but unless you explain the particular circumstances of the case to the patient herself, you can hardly expect her to persevere in the protracted plan of treatment which is often required. I know of no medicine on which you can place much reliance, excepting mercury given in the cautious manner which has been before recommended; sarsaparilla may be given at the same time, or, if needful, some more decided tonic. The mercury must be continued for 10 days, at least, after slight ptyalism has been induced; if you lay it aside earlier, you will fail of accomplishing your object; if there be some remains of inflammatory action, the occasional employment of leeches will be necessary, but in simple thickening, as a consequence of previous inflammation, it is not advisable to remove blood.

The advantage derived from the mercurial course, will, sooner or later (for the time varies in different women) become evident to the touch; the part will be felt to be smaller and softer, until at length the os uteri regains its natural size and shape, and, unless the constitution suffers, I should advise you not to discontinue the

remedy until this complete restoration of the parts has taken place ; you can only proceed in this manner, however, with those who have been previously robust and healthy, for mercury is a most unmanageable remedy where the constitution is of the opposite character. Let me once again endeavour to impress upon your minds the necessity of great attention to these cases, not only from the reasons stated to you, but from a conviction, experienced in my own mind, that neglected chronic thickenings of the os uteri may lay the foundation of genuine scirrhus disease, where there exists in the system a disposition or tendency to cancer ; just in the same way as a blow or fall upon the breast, by exciting inflammatory action, has been known to be the immediately exciting cause of carcinoma mammæ, where the latent disposition to that horrible disease has previously existed.

Common ulceration of the os uteri may also be the result of inflammation, which, although not dangerous to life, yet is attended with many unpleasant symptoms, and is often difficult of cure. Smarting pain is complained of ; the discharge from the vagina will be mingled with that of the ulcer, whence it appears purulent or bloody. Examination per vaginam, in the ordinary manner, will generally discover the nature of the case ; or you may use the speculum, an instrument of unquestionable utility, but I think oftentimes unnecessarily employed. The common method of examination is offensive enough to the feelings of a modest woman, and how much more must those feelings be shocked by a complete exposure of the person.

Treatment. — Keep your patient perfectly quiet, in the horizontal position, and let warm decoction of poppies, or of hemlock, be frequently thrown up the vagina. Should the sore become indolent, you then use a stimulating lotion, such as a weak solution of nitrate of silver. Attention to the bowels is required, and regulation of the diet, according to circumstances. Formation of little abscesses, in the glandular structure surrounding the os uteri, is sometimes caused by chronic inflammation of the part ; their existence is known by observing the vaginal discharge ; it is purulent, and varies in quantity, being greater when the abscess bursts and first discharges its contents. The health is usually bad, and therefore constitutional means must be had recourse to. With regard to topical applications, warm fomentations should first be used, and afterwards stimulating injections.

LECTURE VII.

Malignant ulcer of the womb — generally occurs after menstruation has ceased. — Symptoms in the early and in the more advanced stages of the disease. — Peculiarity of the pain; disease commences in the membrane covering the os tincæ; differs in its appearance from carcinoma; substance of the uterus in general not affected. — Treatment, palliative, except at the commencement, before ulceration has taken place; treatment when ulceration has occurred; various other ulcerations of the os uteri. — Cauliflower excrescence; symptoms. — Sir Charles Clarke's opinion as to its cause. — Prognosis always unfavourable regarding life; favourable and unfavourable symptoms as to duration of life; may be mistaken for placental presentation.

MALIGNANT ULCER OF THE WOMB.

The os and cervix uteri are occasionally the seat of ulceration, which, from its character, has been termed "malignant," although it differs materially from what are usually called the malignant diseases, viz., cancer and hematoid fungus. Women are very seldom the subject of this affection until they arrive at the age when the monthly function of the womb ceases, and this observation will apply to most of the other dangerous varieties of uterine complaints, for as long as the local flow is continued, the tendency to morbid action appears to be prevented from developing itself; but when the vessels are no longer relieved by the evacuation, the hitherto latent germs of disease begin to manifest themselves, and, unless checked by appropriate treatment, soon acquire a fearful degree of maturity.

Symptoms. — The symptoms which precede the formation of ulcer are too frequently those which excite no alarm in the minds of our patients, particularly as they always expect some uneasy sensations at "the turn of life." A sense of heat in the vagina may be mentioned as one of the earliest signs, varying in intensity; in some hardly deserving the name of *heat*, the natural temperature being but slightly increased, whilst in others the sensation is described as being almost intolerable. A thin, acrimonious discharge is also noticed, its quantity sometimes very small, but its quality remarkably irritating, so that, unless cleanliness be observed, the surface over which it flows becomes inflamed, and afterwards excoriated. Soon, however, this discharge becomes purulent, often mixed with blood, and highly offensive. As the disease advances, there are occasional hemorrhages to a serious extent, produced in consequence of the coats of some of the larger vessels being destroyed by the ulcerative process.

The constitution soon gives way under these repeated drainings, the face becomes pale and sallow, muscular strength is diminished, the pulse feeble and rapid, and, in short, all the usual symptoms indicating prostration of the powers of life are observable. Pain is

an uniform attendant on this form of uterine disease, but of a peculiar kind. When I speak of cancer I shall take occasion to repeat the observations, now about to be made, respecting the different kinds of pain experienced in the two diseases. In cancer, intense and agonizing pains are experienced, and these are described of a lancinating or stabbing character; in the malignant ulcer, they are designated of a burning or scalding kind, so that you could, from that circumstance, even prior to an examination, form a tolerably accurate opinion whether your patient were suffering under malignant or cancerous ulceration.

Malignant ulcer of the uterus commences in that portion of the vaginal membrane which is reflected over the mouth of the womb, soon extends over its whole surface, and, penetrating to the parts beneath, destroys entirely the os uteri; the cervix is next attacked, and in some rare cases the female has lived until nearly the whole of the organ has been removed by ulceration.

I show you two very interesting specimens of the disease, one presented to me by my friend Mr. Pereira; the subject from whom it was taken was a patient of the General Dispensary, Aldersgate-street, who died of fever. So little inconvenience was experienced, or at least so little impression was made upon her mind, that Mr. P.'s attention was not even directed to the uterus, and yet observe the ravages made by the ulcer; the whole mouth and part of the cervix completely gone. But notice also the upper portion of the organ; there is not the slightest apparent deviation from the healthy condition, no redness, no enlargement, no thickening. It is this circumstance which in so striking a manner characterises this variety of uterine ulcer. When you make an examination per vaginam, you easily distinguish by the touch to what extent absorption has taken place, but every part, with the exception of the actual seat of the ulcer, appears healthy. Even in some of the worst cases, where the bladder and the rectum have been involved, there has still been no thickening of the adjacent parts. In but few instances, however, do we find ulceration extending beyond the womb itself.

Treatment. — When ulceration of this kind has occurred, the powers of nature are never equal to restore the part to its natural condition; this I believe to be the concurrent testimony of our most celebrated practical men. Sir Charles Clarke says, "When once the ulcerative process has commenced in this disease, the part attacked by it never as far as the author's experience has gone, recovers its healthy structure, but increased action of the blood-vessels of the os uteri, which would eventually terminate in ulceration, may, probably, be diminished or controlled, so that the ulceration may not take place, and by such a mode of treatment much advantage is gained."

Another author states, that though the cure of this ulcer is exceedingly difficult, and notwithstanding it is "nearly as severe as cancer itself," yet it has been cured by "mercury alone, or combined with hemlock, hyoscyamus, and other narcotics." My own

experience induces me to coincide in the opinion of Sir C. Clarke, and I therefore wish to impress upon your minds, I had almost said, the *awful* necessity of attending to the symptoms antecedent to the formation of ulcer. My opinion, formed from not a very limited circle of observation, is very decided as regards *this* and most other species of malignant disorganizations of the uterus; viz., that inflammation is their cause, the *fons et origo mali;* that it is not essentially specific in its character, but observes the same laws, and yields to the same treatment, as any ordinary case of inflammation; that the specific character, which the disorder afterwards assumes, depends not upon the application of any peculiar exciting cause, but that the character of such disease is determined by the tendency which exists in the individual constitution; and, lastly, that therefore the same immediate cause produces in one, simple inflammation, with chronic enlargement; in a second, malignant ulcer; in a third, carcinoma; and in a fourth, cauliflower excrescence. Do not, therefore, as you value your own reputation, and the well-being of those patients who commit themselves to your care, do not negligently pass over, but, on the other hand, carefully attend to, the *slightest* symptoms of uterine uneasiness, more especially if they appear when the menstrual discharge is about finally to cease.

I have already told you, that in some the flow gradually lessens, and by degrees disappears without any uncomfortable sensations being experienced; this, however, though "a consummation devoutly to be wished," is not often the case, for almost every female, even where there is no tendency to malignant disease, feels some annoyance at this period, and as we seldom know beforehand what is *the* affection to which the constitution may be predisposed, it behoves us to treat every case with the same attention we should direct towards it if we were certain that life or death would be the result of our remedial plan.

Suppose, then, a patient applies to you at about the age of forty-five, complaining of heat in the genitals, pain in the back, dragging sensations about the hips, uneasy feelings in passing urine, with or without tenesmus, do not dismiss her with such a sentence as this, "Well madam, you must expect all these uneasy feelings at your age, but if you have patience they will subside." True, they *might* disappear, but it is equally true that these symptoms are very often the forerunners of fatal diseases; consider, therefore, such a case to be at least of threatened malignancy, and attack it accordingly. The removal of blood will be suggested to your mind as likely to relieve incipient inflammatory action; in some persons who are of plethoric habit, where there is force as well as frequency of the arterial circulation, it may be removed from the arm, but in most, cupping from the loins, or leeching the vulva, will be sufficient; the latter method I would recommend, believing it advisable to empty the vessels in the immediate neighbourhood of the disease. After the lapse of a longer or shorter interval, which

must vary according to the circumstances of each case, the blood-letting should be repeated. If, after the application of the leeches, discharge of a leucorrhœal character makes its appearance, you may regard it as a good sign, and should by no means endeavour to check it.

Purging, to a moderate extent, is required, and for that purpose you employ the alkaline aperient prescribed in a former lecture, with or without the hyoscyamus, as the nature of the case may require. Although powerful purgatives, as is well known, will, in many instances, quickly reduce inflammatory action, yet here, from the proximity of the rectum to the womb, if you were by drastic aperients to act violently upon the former you would of necessity irritate the latter. A warm hip-bath, the temperature of which is not very high, say from 90 to 93 degrees, should be used every evening, the immersion to be continued until a slight degree of faintness is beginning to be felt; after this a sufficient quantity of any anodyne may be given to procure rest for the night. Long-continued fomentation of the part itself will often lessen pain, and this may be easily effected by throwing up the vagina, by means of a syringe, warm decoction of poppies or of hemlock; the diet must necessarily be abstemious, and everything which excites the action of the parts avoided; should the female be married, she should be advised to separate from her husband for a time.

This treatment, then, is proper, and, in many cases, will be successful if you have an opportunity of putting it into practice before ulceration has taken place; when, however, you have the ulcer actually formed, you must, I fear, entertain very slender hopes of a cure, although, by proper management, relief, to a certain extent, may be obtained.

It is of the first importance that the offensive discharge be removed from the parts, and not suffered to irritate the delicate vaginal membrane; warm fomentations, before mentioned, will answer your purpose very well at first; but when the discharge is in large quantity, or where hemorrhage supervenes, some cold astringent solution is to be substituted, *e. g.*, a weak solution of sulphate of zinc, sulphate of copper, &c., in decoction of oak bark or galls. A pencil of nitrate of silver has been used by some, introduced through the speculum, and applied to the ulcer itself, with a view of destroying the diseased ulceration, and of producing a healthy sore beneath. I am not prepared to say that this would be a useless application where the disorder is confined to a small surface; at the same time, the irritation produced is so great, that a reasonable doubt may be entertained respecting its efficacy; it is a plan not adopted by myself. The operation of cutting away the os and part of the cervix uteri, as proposed and practiced by Lisfranc, would be much more likely to remove the disease altogether, but of this I cannot speak from experience.

The horizontal posture must be constantly kept to; you cannot too strongly enforce upon the mind of your patient the necessity of

strict obedience in this particular. Where the strength is failing, and emaciation rapidly advancing, a more nutritious diet will be required, care being taken to avoid stimulants; a tonic remedial plan is also indicated; the mineral acids are very agreeable, and serviceable also; they may be combined with any bitter infusion; the hydrochloric acid is peculiarly grateful to a weakened stomach, though sometimes it disturbs the bowels.

Other ulcerations are sometimes seen on the neck of the womb, such as the syphilitic, scrofulous, &c.; these should be treated in the same manner as when they are externally situated. In scrofulous abscess of the glands of the os uteri, the cheesy-looking matter, peculiar to that affection, will pass away mixed with the vaginal discharges.

CAULIFLOWER EXCRESCENCE OF THE OS UTERI.

This disease has been so designated, from the tumour bearing some resemblance in its texture to the vegetable of that name; it consists of a larger or smaller swelling, which possesses a considerable degree of firmness, made up of an indefinite number of projecting bodies, varying in size and figure, being in some parts rough, in others smooth. It grows from the exterior of the os uteri, and has never yet been discovered within the cavity. The enlargement in some is rapid, in others slow; this depends upon the constitution, in part, and partly upon the condition of the vagina, whether it be relaxed or firm.

The tumour is covered over by a membrane, which secretes a limpid, watery fluid, the quantity of which necessarily depends upon the size of the swelling, as it is poured out from the whole of its surface; whenever, therefore, the discharge is copious, we may be assured, before an examination has been made, that we shall find extensive disease; at the commencement there will be little more than the ordinary moisture of the parts; this will increase until it becomes inconvenient to the patient; but as no pain is felt, her mind is not impressed with the idea that she is labouring under disease; at length the constitutional powers begin to fail, the countenance becomes sallow, and great weakness supervenes, or, perhaps, she is alarmed by the sudden irruption of a large quantity of blood; this hemorrhage may occur spontaneously, or, probably, be brought on by exercise, or by some sudden concussion of the body; where this has once taken place it is apt to be renewed by very slight causes, and then the powers of the system are speedily reduced. Sir G. Clarke remarks, that fatal syncope has been known to follow one of these hemorrhagic attacks; œdema is a very common attendant in the latter stages of the complaint, the patient being carried off by dropsical effusions into some of the cavities of the body, and thus may be said to have been destroyed by the remote *effects* of her original disease. In the post-mortem inspection of those who have died from cauliflower excrescence,

no distinct tumour, but a mere flocculent appearance, has been observed, growing from the os uteri. With the cause producing the disease we are not fully acquainted; it seems, however, to be a vascular and, in fact, an arterial tumour, and the conjecture of Sir C. Clarke appears so reasonable, that I shall read to you what he has said respecting it: — "Hitherto it has not been ascertained what circumstances produce in the parts a disposition to take on the formation of this disease. It might be conjectured that an injury inflicted upon the os uteri in labour, either by the head of the child, or by violent attempts made to dilate it, might become an exciting cause; but many examples are to be met with, in which such injury has been done to the os uteri, and no such disease has followed. Married women who have never been pregnant — nay, single women — are liable to the complaint, in whom no violence can have been offered to the os uteri; it cannot be traced to any syphilitic cause; the common prostitutes of this metropolis are by no means more liable to it than any similar number of women in different stations of life. The disease arises as often in the strong and in the robust, as in the weak; in persons who live in the country, as those who live in large towns; in those whose situation in life obliges them to labour, as well as in those who, from their rank in society, sometimes consider themselves privileged to be useless members of it. No period of life, after the age of twenty, seems to be exempt from the disease. The author has known it fatal at the age of twenty; and he has met with the disease at different periods of life up to old age. The complaint may arise, perhaps, before the woman has reached her twentieth year, but no such case has occurred in the experience of the author.

"It has been observed above, that arterial blood escapes from the tumour when injured; indeed, the tumour appears to be made up of a congeries of blood-vessels, and those blood-vessels, arteries; the infinitely small branches of these vessels, terminating upon the surface of the tumour, exhale in the most abundant manner an aqueous fluid. Perhaps some small arteries near the os uteri may undergo that morbid dilatation of their coats which is analogous to aneurism in larger trunks, and thus the disease may be produced. Somethimg similar to this takes place in the arterial or blood-red nævus; but there, the surface being covered by cutis and cuticle, no moisture of the part is met with; but if the surface of such a nævus be injured, arterial blood escapes. May such a state of blood-vessels exist at the time of birth, remain concealed in early life, from the very small quantity of blood which circulates in the organs of generation at that age, and be developed at that period at which blood rushes with greater force, and in greater quantity, to enlarge those organs, and in the female to render them fit for the performance of new duties? It may be that the increased circulation which is present at puberty, may not be sufficient to elicit the phenomena of the complaint; the stimulus of marriage may be required in some, whilst in others the further development of the organs in pregnancy, or the exertions of labour

may be necessary to call forth the morbid symptoms of such hitherto dormant disease."

The vaginal examination of these patients should be conducted with caution, as a rough examination would break down the tumour, and produce considerable hemorrhage.

Prognosis. — When called upon to give an opinion, it must be always unfavourable as regards life; but there are circumstances to be taken into the account with regard to its probable duration. The favourable symptoms are, 1st, The health of the female not being impaired. 2dly, The tumour being small, not occupying the whole of the os uteri, but only a portion of it; the discharge being in proportion to the extent of surface from whence it flows will here be much less; again, the blood-vessels are smaller, and, therefore, hemorrhage will be much less profuse. 3dly, A firm and contracted state of the vagina, the pressure of which tends much to retard the growth of the tumour. 4thly, The female being unmarried. Whatever determines blood to the part will more or less cause an increase of the swelling, as it is entirely composed of arteries. Moreover, repeated coitus will relax the parietes of the vagina, thus producing a double disadvantage, for you not only have an increased flow of blood to the tumour, but a diminution of resistance on the part of the vagina; if, then, the patient be unmarried, the chance of life being prolonged is much greater. The unfavourable signs are the reverse of these; the patient's constitution giving way, the tumour occupying the whole surface of the os uteri, the discharge profuse, the vagina relaxed, and, lastly, the patient being married. Again, if married, she may become pregnant; when from the greatly-increased capacity of the uterine arteries during that state, the tumour rapidly increases in size.

If a female affected with cauliflower excrescence should prove with child, and you have no opportunity of examining before labour comes on, you would, probably, at first mistake the case for placental presentation, in consequence of the profuseness of the hemorrhage, for the blood will then come away in most alarming quantities.

I have already told you there is no *cure* for this disease. In the next lecture we shall consider what means are best adapted for the relief of those unfortunate individuals who are the subjects of it.

LECTURE VIII.

Treatment of cauliflower excrescence of the os uteri. — Necessity of commencing early; treatment at its commencement; bloodletting; application of cold; straight syringe to be preferred; quietude necessary; recapitulation.—Treatment in the more advanced stage; symptoms attending that stage; indications; remedies required, local and constitutional; ligature; means of distinguishing this excrescence from placental presentation; treatment when occurring at the time of labour.—Carcinoma uteri, not always begins in the cervix.—Definition of scirrhus; symptoms; danger of confounding the symptoms with those of dyspepsia; character of the pain. — Ulcerated carcinoma; symptoms; does not of necessity prevent impregnation.

TREATMENT OF CAULIFLOWER EXCRESCENCE.

If the treatment of this disease be begun sufficiently early, the female's life may be greatly prolonged; and not only so, but may be rendered tolerably comfortable, as the complaint, throughout its whole progress, is attended with a very inconsiderable degree of pain. The want of this success is in most cases to be attributed to delay on the part of the sufferer herself, in not applying for advice until the most favourable period has passed over; however, to use a homely maxim, "if we cannot do all we could wish, it is our duty to do all we can." Now, what is the disease we are anxious to relieve? Coinciding in opinion with Sir Charles Clarke, I reply, that it is a morbid growth or enlargement of blood-vessels. The action of those vessels is capable of being excited by anything which increases the force of the general circulation. Here, then, is your first indication, viz., to prevent or to moderate vascular action *generally*, and thus, as a matter of course, to lessen the action of the vessels forming the swelling. This indication is more certainly fulfilled by removing blood from the arm; ten or twelve ounces may be safely drawn away, if the constitution be healthy, and the pulse beating with force.

If the strength be reduced, and the system unable to bear this abstraction of blood, you must be content with cupping the loins, or the use of leeches to the vulva, groins, or perineum. Recollect I am now speaking of the treatment of the disease in its early stage. I shall have occasion, presently, to tell you of a different plan required after it has existed for a length of time, and where it has produced its debilitating and exhausting effects upon the system.

Upon bloodletting, judiciously employed, and, where necessary, occasionally repeated, great reliance is to be placed; not only for retarding the growth of the tumour, but even for diminishing its size, for a time at least. I mentioned, in my last lecture, that a tonic and contracted condition of the vagina was to be regarded amongst the favourable signs, the pressure or resistance of which would prevent a sudden increase of the morbid excrescence. This

will open to your minds a second indication, and you will make use of such local applications as have a tendency to preserve this contraction, or to restore it where relaxation has taken place. You know already, from what has been observed in former lectures, that cold, properly employed, has great power in effecting this object. In some cases, frequent ablution of the parts in the neighbourhood will be useful.

The most effectual method of applying cold with which I am acquainted, is to procure a large bladder, about half-filled with pounded ice, and lay it over the lower part of the abdomen; it is also much more comfortable for the female, as she will be kept perfectly dry, whereas, if you use the cold water in the ordinary way, no care will be sufficient to prevent the bed-clothes from becoming wetted, and this will add greatly to the annoyance of the patient. Injections of iced water into the vagina should at the same time be employed; a *common* straight female syringe is the best instrument to effect this purpose, the nurse being cautioned not to introduce it more than one inch beyond the os externum. There is a great objection to the long-tubed syringe (so serviceable on many other occasions) on this account, that as the tumour is easily broken down by slight pressure, a degree of injury might be inflicted by the extremity of that tube, sufficient to produce an alarming hemorrhage. It is, probably, better in the first instance for the medical man to perform the operation himself, that the attendant may see the proper mode of doing it. I need hardly say, that all stimuli, whether topical or general, would of necessity greatly interfere with your remedies; perfect quietude is required, and everything likely to excite the system, whether physical or mental, is to be studiously guarded against. You well know, that even when the body is in a state of quiescence, the circulation may be greatly disturbed by powerful emotions of the mind; by whatsoever cause this effect is produced, the disease will be increased. Confinement to the couch is also absolutely indispensable, in order that the influence of gravity may not have an unfavourable effect in producing enlargement of the swelling, by allowing the vessels to become distended with blood. As so little pain or inconvenience is felt by the patient, it will be right for you to explain to her the nature of the case, and your reasons for insisting so strongly upon this position, or she may, perhaps, think you are subjecting her to an unnecessarily severe regimen; and an indiscreet deviation from the plan laid down will be the very probable result. A soluble state of the bowels should be preserved; this is exceedingly important; first, because a constipated condition of bowel would have a *directly* injurious effect upon the parts in the neighbourhood; and, secondly, because strong muscular straining efforts, for the purpose of expelling hardened fæces, would be very likely to break away portions of the excrescence, and produce effusions of blood. On the other hand, when diarrhœa supervenes, it should be immediately restrained, as its weakening effects are highly prejudi-

cial. The diet must be simple and unstimulating; fish, poultry, and the animal jellies form an useful and not unpleasant bill of fare; you will, of course, allow neither fermented nor spirituous drinks.

Let us shortly recapitulate the several means to be employed in the early stage. First, venesection or topical bleeding repeated occasionally; secondly, the application of cold; thirdly, the employment of mild laxatives; fourthly, the use of a spare diet; and fifthly, the strict maintenance of the recumbent posture.

We now pass on, and shall speak of the *treatment of the more advanced stages.* This must necessarily be very different. The constitutional powers are here sinking; the patient is exhausted by a *constant* drain, of reddish colour, with occasional gushes of florid arterial blood; various hysterical symptoms are present, palpitation of the heart, a sensation of choking, and so on; the countenance is pale; the lips livid; the pulse feeble and rapid; and, perhaps, a general state of œdema has supervened. What are your indications here? They are two; to constringe the vessels of the tumour, and thereby to lessen the discharge, and to rally the sinking powers of the constitution. For the accomplishment of the first, powerfully astringent injections are required, *e. g.*, a solution of alum in water, decoction of galls, or decoction of oak bark; sulphate of copper or sulphate of zinc may be substituted for alum, in some cases. These applications will also have the effect of contracting the vagina, an object of no mean importance in the treatment of these affections.

The powers of the constitution are to be supported by tonic medicines, and by as nourishing a diet as the stomach will bear, or, rather, digest. The more solid food, such as a mutton-chop, is to be preferred, if the patient can take it; if not, strong soups, or raw eggs beaten up with milk or water, with the addition of a little white wine, nutmeg, and sugar may be substituted. Where exhaustion is rapidly advancing, you will find it necessary to administer small quantities of stimulants, occasionally throughout the day; great circumspection is, however, required in their employment, lest the circulation be too much excited, and the discharge be thereby increased.

I have little to say with regard to medicines, as they frequently require to be varied. Capsicum and quinine pills, given an hour before dinner, and the mineral acids continued at intervals throughout the day, are among the best you can employ; if these do not appear to succeed, other tonics should be tried. I have found the larger doses of tinct. ferri. muriat., of essential service in these cases, giving from fifteen to twenty-five minims thrice or four times a-day, in an ounce of camphor mixture. I have at this moment a lady under my care in whom the hemorrhage has been greatly restrained by the tincture, although there can be no doubt that the disease is advancing, and that it will certainly prove fatal. Still you know it is the duty of the medical man to relieve, and to prolong life where he cannot preserve it. With this view it has

been proposed to tie a ligature around part of the tumour, not with the hope of permanent good, but for the purpose of restraining the flow of blood for a time by closing the vessels. When the ligature has come away, the growth continues to increase, and the female is soon in the condition she was in prior to its application. I have never met with a case myself wherein I felt justified in recommending this plan; others, however, have done so, and I, therefore, urge it upon your consideration, neither warmly recommending, nor absolutely condemning it.

A profuse hemorrhage sometimes destroys the patient in a very sudden manner, by producing mortal syncope, whilst in others, especially those whose constitutions were previously healthy, life is protracted to a longer period, the strength being more gradually worn out.

At the conclusion of our last lecture I told you, that if a patient whilst labouring under this disease, should unfortunately become pregnant, and proceed to the full term of gestation, the hemorrhage would be most alarming. This is the natural result of the injury inflicted upon the vascular excrescences by the pressure of the head of the child. If the tumour is large, you will find it occupying the upper part of the vagina, and, on examination, your first impression will be, that it is a presentation of the placenta. Examine with care, and you will at once correct this mistake. Bear in mind, in the first place, the part from whence the cauliflower excrescence grows, the *exterior* of the womb. It has never been found within its cavity. I am aware (for I have experienced this difficulty in practice) that you cannot at all times trace the swelling up to its attachment. The finger, if I may use the expression, becomes entangled in the various lobes of which the tumour is composed, and does not reach the upper part of the vagina, so that you feel at first nothing but a confused lobular mass, the os uteri and the child being beyond the easy reach of the finger.

Now just contrast this with the presentation of the placenta. If you are called early in the labour, you discover the substance presenting altogether within the cavity of the womb, not at all interfering with the os uteri; the degree of its dilatation can be as easily ascertained as in a natural labour. Nor is any difficulty experienced in reaching the womb, even in those cases where, from the violence of the uterine efforts, a portion of the placenta has been pushed through the os uteri. The child may often be distinctly felt behind it, and whatever the mass may be, you easily discover that it grows from *within*, and not on the outside of the uterus.

In cases of cauliflower excrescence, if the parturient action does not speedily expel the child, delivery must be effected by art; and if the tumour be large, it is better to lessen the bulk of the head by performing the operation of craniotomy. The life of the woman will, under all circumstances, be in great jeopardy, in consequence of the blood necessarily lost. Should she survive the

shock of labour, the plan already detailed to you should be pursued with vigour, and all future intercourse with her husband prohibited.

CARCINOMA OF THE WOMB.

Of all the malignant disorganizations of the uterus, cancer is the most frequent. It sometimes attacks females in the very prime of life, but is most commonly developed after the catamenial secretion has ceased. The true scirrhus enlargement of the womb, which ends in cancerous ulceration, very generally commences at the cervix uteri; so commonly does this happen that some authors have asserted that the genuine disease has never been known to begin in the body of the womb. The preparation which I hold in my hand, proves this opinion not to be correct, for here the ulceration commenced high up, and gradually extended downwards. Sennertus, in his work "On the Diseases of Women," was quite aware of the fact just adverted to, for he says, "Etsi cancer etiam ipsi uteri *substantiæ* accidere potest, tamen hoc rarius accidit, et vixtum satis cognoscitur, multo minus curatur; frequenter vero in cervice uteri generatur, quapropter hoc loco de eo agemus."

Before proceeding further, it is right for me to say, that I restrict the term scirrhus to that hardened formation which, if not checked in its progress, will inevitably end in ulcerated carcinoma. These morbid growths seldom acquire a large size, and, therefore, differ very materially from that diseased mass into which the uterus is occasionally converted, and in consequence of which it sometimes acquires an enormous magnitude; this is what has been termed "indolent scirrhus," but as it does not ulcerate, and appears more closely to resemble tubercle, I shall describe this variety of disease under the name of "tuberculated uterus."

Carcinoma of the uterus, I have said, generally begins at the cervix, either by a firm and distinct tumour, or, which is more frequently the case, by a general enlargement and thickening of the part. The symptoms attending the beginning of the disease are slight; women seldom apply for relief until, upon examination, you find such changes have taken place, which could not have occurred in a very short space of time; and if you occasionally examine a patient who has submitted herself to proper treatment, you will observe the changes to be taking place very slowly. The preparation which I now show you, was taken from the body of a female who had been for six years a patient of a neighbouring dispensary; during the whole of that period she laboured under the symptoms of carcinoma.

Leucorrhœal discharge, in a greater or lesser degree, is present in the very early stages of scirrhus uteri; it is sometimes streaked with blood, more especially if much exercise be taken, or the woman indulge in stimulating food or drink, and in some cases free hemorrhage is induced, the quantity being sufficient to alarm her mind. After a while, uneasiness and a sense of weight are

complained of, with darting pains about the hypogastrium, aching pains in the back and loins, extending forward to the upper and inner part of the thigh. If menstruation has not ceased, it becomes more profuse, and blood is mixed with the secretion; after this local evacuation, the tumour generally remains stationary for a time, and the pain is somewhat relieved.

The stomach, as usual, sympathises with the womb; there is often want of appetite, nausea, vomiting, heartburn, with other symptoms characterising dyspepsia; care is required not to confound these with the original disease, which you might do, I had almost said, without blame, in some instances; many women are so exceedingly diffident, that, even when consulting their medical adviser, they will conceal every circumstance which would direct attention to the genital organs, unless you were to put what the lawyers call "leading questions" to them. In all cases of female disorders, particularly when they occur about the "critical period," the state of the uterus should form a very principal object of your inquiry, and should you suspect any disease, let your patient be immediately submitted to a careful examination per vaginam. Frequent inclination to pass water is a very common symptom, sometimes the mere result of the close sympathy which exists between the womb and the bladder, at other times the result of a disordered condition of the mucous membrane of this latter organ. The pain attending carcinoma, I have before mentioned, is of a peculiarly lancinating or stabbing kind, and you will generally observe that this pain is greatly aggravated at periods; these are, however, very uncertain, both as regards their duration and the intervals between them. Should hemorrhage occur during one of these attacks the pain will be relieved. If you make an examination before the ulcerative process is established, you will feel the os uteri to be more open than usual, and irregular in its figure; in this respect, however, there are great variations; in some you may, without the slightest difficulty, introduce the top of the finger, which will appear as if surrounded by a thick, cartilaginous ring, so great a change having been effected in the natural structure of the part. Where this substance is easily broken down by pressure, you will find, on examination, that the finger is tinged with blood, and this may always be regarded as an unfavourable sign, as it marks that kind of softening which immediately precedes ulceration. An examination by the rectum should be made also, as a scirrhous affection of the bowel, producing somewhat similar symptoms, is occasionally to be met with.

When ulceration has taken place, the most dreadful state of suffering awaits the unfortunate patient; the pains become agonizing, and experience but little remission; there are frequent hemorrhages in consequence of the coats of the arteries being destroyed: the discharge, instead of consisting of mucus, becomes changed into a sort of purulent ichor, most irritating to the surfaces over which it flows, and of an almost intolerably offensive smell;

in one of the last cases of carcinoma, which I was called upon to superintend, the fœtor was distinguishable as soon as the street-door was opened, although the house was of large size; this circumstance adds greatly to the annoyance, not only of the sufferer herself, but of all around her. The bladder in front, or the rectum behind, or both, are frequently laid open by the extension of the process of ulceration, and then, in addition to the symptoms already enumerated, the urine and fæces pass involuntarily. I need not tell you that the fœtor of the discharge is thereby greatly increased, and that it is rendered much more irritating to the genitals. It is scarcely possible to imagine a state of greater bodily torment than it often experienced at this stage of carcinomatous disorder; these cases are rendered doubly afflictive by the absolute certainty of there being no cure, and the great uncertainty of obtaining even a little *relief*, our hopes being often disappointed in this respect.

Horrible as is this disease, it does not always prevent impregnation; observe the preparation on the table before you. I will shortly relate the particulars of the case, so far as I had myself an opportunity of witnessing them. The poor woman from whom this uterus was taken resided in this neighbourhood; she became pregnant, went to the full period of gestation, and was delivered by one of the midwives belonging to the Royal Maternity Charity. Her labour, she informed me, was remarkably favourable. I visited her for the first time about three weeks after confinement, when she complained of the most excruciating torture in her back; the discharge from the vagina was very fœtid, the pulse rapid, but feeble; there was a fiery-red appearance of the tongue, and an obstinately constipated condition of the bowels. On examination, the vagina and rectum appeared to be nearly blocked up by a hardened mass, consisting of a number of tubercular feeling bodies, which, I supposed, were the glands of the bowel and vagina in a state of scirrhous enlargement; the os uteri could not be felt. You will see why it could not, if you look at the preparation; the part had been completely destroyed by ulceration. The parts in the neighbourhood of the uterus were greatly indurated and thickened. On making pressure above the pubis great tenderness was complained of. You will often find this to be the case; it arises from the peritoneal covering of the womb becoming inflamed Peritonitis often occurs to a great extent, so that, on inspecting the body after death, you find extensive adhesions to have taken place as the result of this inflammation. To return to the case, however, the patient's complaint continued to advance, and soon extended into the rectum; colliquative diarrhœa then came on, which I was unable to restrain, although sedatives and astringents were employed. The bladder also gave way, producing a frightful mass of disease; the three passages, namely, that of the bladder, the vagina, and the rectum, being laid into one. This individual lived three weeks after I first saw her, making a period of six weeks after her delivery.

I once more call your attention to the difference in the appearances of this malady when contrasted with malignant ulcer. In carcinoma the whole uterus is thickened, enlarged, and indurated, and, indeed, all the adjoining parts become so; the upper portion of the vagina is as completely scirrhus as the womb itself, rendering it difficult in the latter stages to determine where the vagina ends and the uterus begins. Look again at this preparation; you will observe that the cellular membrane at the posterior part of the rectum is converted into a substance at least an inch in thickness.

Now, no such appearances are observed in the malignant ulcer; there is the ulcer, greater or less in different persons, but beyond it and around it there is a healthy appearance of parts. When you have once had an opportunity of examining a case of true carcinoma, there is hardly a possibility of your confounding it with malignant ulcer. This peculiar condition of the surrounding parts will also prevent your mistaking it for any other uterine affection.

These, then, are the symptoms which characterise the beginning and progress of one of the most distressing and deadly diseases to which the human body is obnoxious; when we meet again I shall consider the various means which are best adapted for its alleviation, I wish I could say for its cure.

LECTURE IX.

Treatment of carcinoma uteri; might be prevented from developing itself if treatment were begun sufficiently early; cases illustrating this point. — Treatment of scirrhus uteri; age at which it generally commences; necessity for careful investigation; antiphlogistic remedies required at the onset; local applications; regimen; variety of medicines recommended at different times; vegetable diet and distilled water. — Ulcerated carcinoma: progress of the ulceration; symptoms; treatment merely palliative; local applications; opium; appearances noticed on dissection; extirpation of the womb proposed by Dr. Blundell; opinion respecting it; Sir Astley Cooper's advice; fungoid tumour of the uterus; character of the disease; symptoms and progress; ulceration may take place in various situations; treatment, palliative. — Neuralgia of uterus: character of the pain; increased during the menstrual period; illustrative case; general appearance of patients labouring under uterine neuralgia; os uteri sometimes swollen; state of the vagina; leucorrhœa sometimes present.

TREATMENT OF CARCINOMA UTERI.

I NEED not tell you, Gentlemen, that we possess no remedy which is capable of curing cancerous affections, whether of the womb or of any other part, and yet I believe many cases of threatened carcinoma might be adverted, had we the opportunity of attacking first symptoms, before the specific character of the disease has

developed itself; for, however we may differ in opinion from those who consider cancer to be the mere result of common inflammatory action, still I must again express my belief, that in a multitude of instances, if not in all, inflammation, and that of a common kind, brings into action what might otherwise have lain dormant in the constitution; and, further, that where proper attention has been paid to this previous condition of the womb, the development of cancer has been altogether prevented. Two cases recur to my remembrance where the symptoms were those I have described to you as indicating scirrhus, and where there was also that stony hardness which in so striking a manner characterises this kind of tumour; nevertheless, both patients recovered perfectly, the hardened deposit being removed by absorption. One of these females was brought exceedingly low, in consequence of frequent hemorrhage, under which she suffered for upwards of a year. I am inclined, however, to believe that the loss of blood contributed in no trifling degree to the perfection of the cure. The result of this case gave me unmixed satisfaction, and has amply repaid me for many apparently unsuccessful attempts to administer relief in similar circumstances.

Treatment of Scirrhus. — The disease generally, though by no means universally, commences about the 45th year of a female's age, or, at least, makes but little progress prior to the cessation of menstruation, and hence, as before noticed, the necessity of making special inquiry into the state of the uterus at that particular time. The first symptoms are, you have been told, inflammatory, and, therefore, the first remedy must be antiphlogistic; in determining, however, the extent to which this plan should be pursued, great discrimination is required; the condition of the uterus, on the one hand, and of the system in general, on the other, should be carefully investigated. The local inflammation is sometimes of a very decided character, and the constitution in a vigorous, nay, in a plethoric condition; and here the propriety of abstracting blood from the arm cannot be questioned. In other cases, and these constitute a considerable majority, general bleeding is improper, and then you will find relief from the application of leeches to the vulva, or cupping-glasses to the loins. Carefully observe the effects of the bleeding, both as regards the uterus and the system at large; it will generally be necessary to repeat the operation occasionally, at intervals proportioned to the circumstances of each individual case. A moderately relaxed state of the bowels should be constantly preserved, but violent purgatives are decidedly improper; still, however, it is better to select those which produce a certain degree of watery discharge, as your object is not simply to empty the bowels, but also, in a measure, to lower the system. Perfect quietude of body, in the recumbent position, forms a very essential part of the remedial plan; and as all powerful mental emotions have the effect of disturbing the circulation, the mind should also be preserved in as tranquil a state as possible. In those whose

constitutions have not been enfeebled, the aperient medicines may be employed for a week or two, and then you may have recourse to the mild mercurial plan recommended already to your notice, when we described chronic inflammation of the womb; the effect of the mercury must be narrowly watched, that the patient may not be weakened by its protracted use. Food should be taken in sparing quantities, and its quality mild and unstimulating; small doses of ext. of hyoscyami, taken at bed-time, will often relieve irritability and procure sleep. The proper local applications are those which encourage the mucous secretion of the vagina, such as the warm decoction of poppies or of hemlock, and these ought to be employed at least four times within the twenty-four hours, the patient using, at the same time, a hip-bath nightly. Even in the early stages of scirrhus uteri, some females are liable to hemorrhages, and where the quantity of blood lost is considerable, the pain is usually relieved for a time; unless, therefore, it be excessive, no attempts should be made to restrain it; if the loss of blood should be sufficient to weaken the constitutional powers, the common treatment for the arrest of uterine hemorrhage will be required.

The longer you can retard the ulcerative process the longer you will keep the disease at bay, and as local stimuli must necessarily have a tendency to hasten on this event, it becomes of the utmost consequence for the female, if married, to have a separate bed from her husband. I have just stated the diet should be light, and the quantity such that the stomach may at no time be rendered uneasy from distention. Where there is an acid state of stomach, no food which has a tendency to pass into the acetous fermentation must be allowed; you will, in these cases, recommend small portions of animal food, broths, and so on, in preference to vegetable diet. Alkaline remedies are here indicated; 15 minims of liquor potassæ, with or without a laxative, as circumstances may require, exhibited twice or thrice a day, will generally afford relief; or you may prescribe half a drachm of magnesia suspended in a glass of milk.

There is no disease for the cure of which a greater variety of medicines has been, from time to time, recommended. The vegetable kingdom has been explored by some, and conium, aconitum, sarsaparilla, &c., &c., have had their advocates; others have employed the various metals, and have been loud in their praises of the different preparations of iron, antimony, gold, arsenic, &c. All have, however, with the exception of a few unprincipled quacks, at length arrived at the same conclusion, viz., that we possess no specific remedy for cancer.

I must not omit to notice the opinion of a certain physician now living (to whom the term quack is not intended to apply) with regard to the disease, viz., that it may really be cured by a very simple method. According to his notion, all you have to do is to desire the patient to live upon vegetables alone, and to drink nothing but distilled water. Absurd as the practice appears at first view, still I think it not unlikely that the total abstinence from

stimulation, which this plan enforces, may, in the *very early stage*, be attended with advantage; but, certainly, not at every period, whether ulceration have taken place or not, as recommended by the author.

These, then, are the remedial means to be made use of in scirrhus of the uterus; and I conclude my observations on the subject by earnestly imploring you not to imagine, because the disease is generally fatal, that therefore nothing can ever be done effectually for the patient's relief. I confidently restate my conviction, that much may be accomplished *at the commencement*, not only in the way of palliation, but for the eventual arrest of its progress, — insurmountable difficulties, which, it is confessed, we frequently meet with, being the result of delay, this manifestly arising from the slight, and, to the patient, unimportant symptoms which characterise its first and only curable stage.

Treatment of ulcerated carcinoma. — The patient's sufferings are, in this stage, greatly increased; the discharge becomes highly offensive, irritating, and greatly increased in quantity; the blood-vessels become destroyed, and hence there are frequent and large effusions of blood. The constitution is greatly impaired, partly, doubtless, from the hemorrhage, and partly, probably, from absorption of morbid matter into the system; the countenance is sallow, the eyes sunken, the pulse quick and feeble; ulceration advances, and the bladder is opened; the urine then passes involuntarily, and the fœtor of the discharges is thereby greatly increased, or the rectum may be ulcerated into, and the patient will then have no control over her fæces: before this takes place, however, there is frequently difficulty in procuring evacuations, owing to pressure of the surrounding thickened parts upon the bowel. In one case, a difficulty of this kind was produced by the pressure of a number of enlarged and hardened glands situated along the course of the vagina. The inguinal glands frequently are involved in the disease, so that the central parts of the patient become one mass of disease, and this of the most painful kind.

After the occurrence of ulceration, all hopes of a *cure* must be abandoned; but we should endeavour by every means within our power to alleviate the misery of our suffering patient. Her state, however, is truly deplorable, and it frequently happens, that the best directed and most judicious means fail even to afford temporary relief; still it is your duty to make the attempt.

First, then, on the list of palliative measures, I would place cleanliness. Frequent, nay, almost constant ablution of the parts is required, that the acrimonious and highly offensive discharges be not suffered to accumulate, and to become more fœtid; these applications must not be used very warm, lest the hemorrhage be increased; in some cases, indeed, it is necessary to use them perfectly cold, that they may act as styptics to the bleeding vessels; a little chloride of lime may be advantageously added to the liquid employed; the female will thereby be relieved, in part, from the

annoyance produced by the unpleasant smell; solutions of the same substance should also be placed in various parts of the room. The bowels are to be emptied rather by enemata than by the exhibition of aperient medicines. The sinking powers of the system must be upheld by a diet somewhat nutritious, but great care should be exercised in this respect, lest an unfavourable degree of over-excitement be produced; in general, no stimulating drink is allowable, although, in some cases, from the great degree of debility and exhaustion which is present, this rule may be departed from. Where the hemorrhage is alarming, I have known good effects to result from the internal use of the muriated tincture of iron, combined with tincture of henbane; of course the relief is but temporary, for, as ulceration advances, more blood-vessels will be opened, and a repetition of the hemorrhage follows of necessity. Something must be done to lessen the agonizing pain, and nothing but opium will answer your purpose. This remedy must not, however, be given in the ordinary doses, or you will altogether fail in your object; you must be guided, Gentlemen, not by the number of grains, but by the effect produced. I have known from twenty to thirty grains given within the twenty-four hours, and but little relief was experienced; this large quantity did not produce sleep, and only in a trifling degree did it seem to deaden pain. My usual plan is to exhibit two grains of opium at bed-time, and repeat the dose in the course of a few hours, if necessary. In a case which occurred some months since, ease was procured by adding one grain to the first dose, making it to consist of three grains. As the disease proceeds, emaciation increases, and at length, although, generally, not until after many years of pain, death puts an end to the patient's sufferings. In the dissection of patients who have died of cancer of the uterus, you often find that inflammation has extended to the neighbouring parts, the surrounding intestines being frequently glued to the uterus by very tight adhesions.

I must not dismiss the subject without allusion to a very bold operation which has been performed on the continent, and more recently in our own country, by Dr. Blundell; I mean the removal of the entire womb. The Doctor operated upon four females who were the subjects of cancer uteri, and the following are the results, as given by himself: — "Having in fact and inference laid a foundation for this formidable undertaking, and feeling persuaded that in some few cases, at least, life might now and then be saved by extirpation, I determined to take the operation in my own hands on some proper occasion, and the more readily, as it seemed rather to require obstetrical dexterity than that of the general surgeon, and I have now operated in four cases, and in four cases only, of which the results are before the profession. Of these cases one was followed by recovery beyond my hopes, though the woman is since dead, and three proved fatal; one in the course of two or three hours after the operation; one in the course of four or five

hours; and one not until nine and thirty hours had elapsed after the uterus had been taken away. Of the three failures, one was in a manner hopeless from the first, though under all circumstances, and at the express and urgent desire of the patient, it seemed but right to give the only remaining chance; one, namely, that in which the patient survived for nine and thirty hours, was a failure of an encouraging kind, for the case, during a good part of the time, manifested many hopeful symptoms; and one, namely, the last in which I operated, and with more dexterity and readiness than in the preceding cases, considerably obscured my expectations, never very sanguine, by proving fatal within some four or five hours after the extirpation was completed, although, previous to the operation, it appeared, both to my medical friends and myself, that all the apparent circumstances were auspicious, and highly conducive to success."

These are the results of Dr. Blundell's operations; the cases are at present too few to enable us to decide positively with regard to the propriety of such an operation. In the present state of our knowledge, I should hesitate in recommending its performance. Sir Astley Cooper, in his admirable Lectures on Surgery, used to say, "Never recommend an operation to another that you would not have performed on yourselves under similar circumstances." If this rule were observed in regard to uterine extirpation, I think it would be seldom had recourse to. In conclusion, I will only just state, that there is no chance of success if the uterus be adherent to the neighbouring parts, or if the vagina be much involved in the disease; in other words, unless the operation be undertaken at an early period.

FUNGOID TUMOUR OF THE UTERUS.

The womb is sometimes the seat of the peculiar affection called "fungus hematodes:" the disease puts on the same characteristic appearances as when it attacks other parts of the body; the tumour is soft but elastic, and composed of an indefinite number of cells, which vary in size; these cells contain serum, mixed with the red particles of the blood. The symptoms attending its early formation are very slight, and are those which are common to most uterine affections. The female complains of uneasiness in the region of the womb rather than actual pain, and there is occasionally, though not always, a slight leucorrhœal discharge from the vagina. In time the uterus enlarges, so as to be distinctly felt through the parietes of the belly; this tumour is to be distinguished by the two characteristics already described, viz., its softness and elasticity. Hemorrhage in a slight degree is often present at an early stage, but not sufficient to alarm the patient. By examination, per vaginam, the os and cervix uteri will be found converted into a soft tumour, and if ulceration have taken place, its extent will be easily detected; when, however, this latter effect has occurred, the discharge of blood is very profuse,

and it is accompanied by the fœtid sanious discharge which is so generally met with in fungus hematodes. The ulceration may occur in different situations; sometimes, as in carcinoma, it begins at the cervix, and extends to the bladder in front and the rectum behind; cases are also related where the fungus uteri has given way, the fungus projecting from its external surface into the abdominal cavity, producing inflammation and adhesion of the intestines; or it may adhere to the parietes of the belly, which yield, and the fungus makes its appearance at the external wound. The female is sooner or later worn out, the constitutional symptoms being similar to those of cancer.

Treatment. — The treatment of this disease is palliative only, and consists in attending to the peculiar symptoms which may arise in the progress of the disease. The treatment recommended in ulcerated carcinoma may be employed in hematoid fungus.

NEURALGIA OF THE UTERUS.

The uterus is occasionally the seat of a painful disorder, which seems to have a very close resemblance to the neuralgic affections which are so frequently met with in other parts.

The pain is far more severe than that which accompanies inflammation of the organ, although it partakes somewhat of the same character, inasmuch as there is an occasional remission, though never an interval of perfect ease. So far as my own personal observation extends, I should say that the malady generally attacks women of an excitable and nervous temperament, who are subject to hysterical affections, and who generally suffer from painful menstruation. The pain is felt at the lower part of the abdomen, darting through to the back and extending to the thighs; there is often a distressing sensation of dragging or bearing down, so that the female feels quite unequal to any exertion; if she persist in moving about her sufferings are greatly increased, and she finds herself in consequence compelled to lie down: this alteration, from the upright to the recumbent position, commonly gives relief, but by no means removes the pain altogether. Women who are naturally irritable experience a greatly increased degree of excitability during the menstrual flow, and you are aware that there is also at this period a larger supply of blood sent to the womb. These facts afford a satisfactory explanation of the reason why the pains are so greatly aggravated at that time; in some cases they amount to perfect agony. I never recollect witnessing a case of more intense and acute suffering than one which came under my notice some years since. My patient was a lady about 26 years of age; she had been the subject of uterine neuralgia for several years, and menstruation was just approaching. I found her sitting in a chair, suffering pains far more severe than those of labour; she had repeated rigors; the body was of an icy coldness, and her stomach rejected everything presented to it. She remained in this condi-

tion for about six hours, and then she became somewhat relieved, but far from being easy. She had been long under medical advice, and had been married for three years, but had borne no child; indeed, her medical adviser had confidently told her she never would bear children. This lady had suffered so much that she was willing to submit to any plan likely to procure relief; and, after the lapse of about four months, I had the satisfaction of pronouncing her cured; she experienced no pain even at her monthly periods, soon afterwards became pregnant, went to the full term of utero-gestation, and was delivered of a fine, healthy child.

Although the sufferings attendant on this painful uterine affection are so great, yet at the commencement you will not find the vascular system to be much influenced by it; the general circulation remains tolerably tranquil; it should be remembered, however, that when patients are subject to long-continued and violent pain, the constitutional powers will at length fail, and then there will be a more frequent, but, at the same time, a powerless condition of the pulse. The general aspect of females who are the subject of this disease, varies; in some there is a pallid and somewhat chlorotic appearance of countenance, whilst in others a clear red-and-white colour is observable, together with that peculiar brightness and animated expression of the eye which is so often witnessed in those who are the subjects of hysterical affections.

In consequence of the continuance of the pain, you might, prior to an examination, be induced to believe the uterus to be affected with some disorganising disease; but, with the exception of pain, there is scarcely a symptom common to both. The uterus, on examination, will in some cases be felt in its normal condition, there being no perceptible alteration either in size or shape; or there may be a slightly enlarged and tumid condition of its mouth and neck: whether there be enlargement or otherwise, there is an exquisite degree of sensibility, the slightest pressure producing an acuteness of pain never experienced in the malignant diseases of the womb. The vagina is sometimes involved in this state of irritability, but at other times is perfectly free, the introduction of the finger giving no uneasiness until the womb itself is touched. A leucorrhœal discharge, varying greatly in degree, is an occasional concomitant, and the stomach very generally is sympathetically affected; there is loss of appetite, nausea or vomiting, and a general failing of strength.

These, then, Gentlemen, are the symptoms which characterise what I have termed neuralgia of the uterus; when we meet again, we will enter upon the consideration of its appropriate treatment.

LECTURE X.

Treatment of neuralgia of the uterus; necessity for the recumbent position, even where the disease is mild; treatment required when the os uteri is tumid. — General circulation in most cases at first but slightly affected: medicines required; opium, belladonna, tonics, nourishment. — Care required not to move about too early: hip-bath. — Tuberculated uterus: fleshy tubercle of Hunter; character of the disease; varieties of uterine tubercle; symptoms and progress; effects upon neighbouring parts; hemorrhage an occasional symptom. — Danger of forming an erroneous diagnosis; ill effects of pressure; necessity for prompt measures. — Treatment of uterine tubercle; in the early stages; may be stayed in its progress; illustrative cases. — Tympanitis uteri.

NEURALGIA OF THE UTERUS.

In the treatment of uterine neuralgia your first indication consists in the endeavour to procure some alleviation of the acute pain under which your patient is suffering, and this will never be effected without strict attention to the position of the body. *On no account whatever* should the female be allowed to rise from the recumbent posture; all your attempts to relieve pain will most assuredly fail, without compliance on the part of the patient with this recommendation: you had better not undertake the treatment of a case of this kind if your patient prove refractory in this respect. In general, however, her own feelings will bear testimony to the propriety of the plan, so that in the more severe cases no difficulty will be experienced. But my own conviction is, that it is actually necessary, even in the milder forms of this disorder, to prevent the symptoms increasing in urgency. The recumbent posture, then, is the first and most important of all your remedial measures. Where you find, on examination, that the os uteri is in a tumid condition, local abstraction of blood will be found to be serviceable: twelve or fifteen leeches may be applied to the orifice of the vagina, and the bleeding encouraged by the application of warmth and moisture.

In some cases where there is little or no tumefaction, if, for example, the pains be severe, and the constitution unimpaired, local bloodletting still affords relief. I have never known it necessary to remove blood from the arm, or to apply cupping-glasses to the loins, although I would not go the length of asserting that the necessity for such practice never exists; I can easily imagine a case in which means for the reduction of vascular action in the system at large might be required, and there you will see the necessity for venesection or cupping, as the particular case might require.

A regular state of the bowels should be preserved, the remedies employed for this purpose being the mildest you can select; great care is required not to irritate the intestinal canal by the exhibition

of drastic purgatives: these would act in an unfavourable manner on the uterus itself, and on the constitution also, inasmuch as they would of necessity tend to reduce the general strength of the patient, which it is most material to preserve. The daily use of a mild injection will answer your purpose better than any aperient by the mouth.

Anodynes are generally required for the relief of pain; a full opiate administered at night is often necessary to procure sleep; either of the preparations of morphia may be prescribed: take care that the dose be sufficiently large, as the exhibition of minute doses will effect little in these cases.

The extract of belladonna sometimes operates in a remarkably soothing manner when given in neuralgic affections; you may order from one grain to one grain and a half to be taken at bed-time every night; or if you prefer the smaller and more frequently repeated doses, the same quantity may be divided in four parts, and one administered every sixth hour.

If there be reason to suppose a certain degree of inflammatory action present (for the two complaints are by no means incompatible) a very mild mercurial course may be instituted. Careful investigation is, however, required before this plan be adopted, for if mercury does no good, it will certainly do harm: in my own practice I have not found, upon the whole, much benefit from this mineral, unless given in merely alterative doses.

Where, as is generally the case, the constitution appears giving way, this being marked by the rapid and feeble pulse, the pallid countenance, cold extremities, weight over the eyebrows, &c., the remedies employed should be of a most decidedly tonic character, and of this class the best are the various preparations of iron. I mentioned, in a former lecture, that where the use of this metal is indicated, I believe the sulphate will be found in most instances to be the more convenient form, and also the most pleasant, as it may be given in the form of pill, and, therefore, need not offend the palate; from one to two grains may be taken thrice in the day, combined with extract of camomile, extract of gentian, of each three grains. A lengthened perseverance in these tonic remedies will always be required, and for this the patient ought to be prepared, as she will be grievously disappointed if she expects a sudden recovery. An occasional substitution of some other tonic is often necessary, but as a general medicine the sulphate of iron is to be preferred. With this remedial plan the diet should correspond, nourishment, with small portions of stimuli, should be cautiously administered, their effects being under the close observance of the medical adviser; removal into a purer air, where practicable, will greatly assist in restoring the general health — probably a sea-voyage would, of all other means, be the best adapted for this purpose, the recumbent posture being at the same time kept to.

It is very difficult to determine the precise time for discontinuing this position of the body — no complaint is so subject to a relapse; this has often followed the slightest exertion. You should not,

therefore, allow the female to walk about whilst any pain remains, and under the most favourable circumstances she must commence with great caution, I had almost said, with fear and trembling; if these slight movements of the body are attended with pain, they ought immediately to be discontinued. During the early stages of the complaint the hip-bath sometimes will give relief, but as its frequent repetition would have a tendency to produce debility, it must not be *often* used, unless it be followed by a very decided mitigation of pain. I conclude my observations on this suffering complaint by again recommending you to warn your patient against the supposition that it can be easily cured.

TUBERCULATED UTERUS.

This singular disease was accurately described by Dr. Wm. Hunter, and called by him the fleshy tubercle of the womb; it is in its nature perfectly innocent, and when of small size does not materially interfere with the health, or even the comfort of the patient. Several patients have been under my own superintendence who merely complained of a slight degree of "bearing down:" the growth has been termed fleshy in consequence of being at first soft, like the fleshy substance of the womb from whence it grows; but as the disease advances, it becomes hard, like cartilage, and in the specimen now exhibited, which is larger, you perceive, than the head of a child, there are large deposits of bone. This specimen was kindly presented by Mr. Leeson, of Finsbury-square: in this case the tumour must have been of long standing. The remarkable peculiarity of the disease consists in this—that although the tumour may have existed for a number of years, yet it neither suppurates nor ulcerates. These tubercles vary in size, and in number sometimes there is but one, at others many, some only the size of a walnut, whilst others weigh many pounds. Their situation is also various; they sometimes grow from the exterior of the uterus, and project into the cavity of the abdomen, and, where the female is of spare make, they can even be felt through its parietes, or they may adhere to the interior of the uterus, whilst in many instances the entire uterus itself enlarges, and is converted into a complete tubercle of large size, with or without smaller masses, growing from its exterior. I feel greatly indebted to my friend, Dr. Roberts, of New Bridge-street, for the preparation I now show you; the entire womb is greatly enlarged, forming a great tubercle, and there are no less than six smaller ones proceeding from its outer surface. The tumour is not vascular, or at least does not admit red blood, neither can the finest injection be made to enter its substance, and, perhaps, this low degree of organization explains the reason why it does not undergo those changes to which many other tumours are disposed.

The growth of uterine tubercle is exceedingly slow, for in those unfortunate cases where the appropriate treatment fails to arrest its progress, many months, and in some instances years, may elapse

before its size materially inconveniences the patient, by obstructing the functions of the surrounding parts. The symptoms marking the disease are at first very slight; there is a degree of uneasiness which can scarcely be designated pain in the back, accompanied with a slight bearing-down sensation, and often an increased vaginal discharge; the menstrual secretion is not necessarily suppressed, nor is conception prevented by the existence of an external tubercle: these are often the only symptoms attending the formation of those morbid growths; but as they increase in size, various parts are pressed upon, and much inconvenience is thereby experienced; the bladder, from its situation, must necessarily suffer. In the early stages there is a frequent, and almost constant inclination to pass the urine, the female being unable to retain it for any lengthened period of time; as the tumour enlarges, the pressure upon the bladder is sufficient to produce complete retention, and here it will be necessary to introduce the catheter (or to teach the patient how to use it herself) twice at least every 24 hours.

The rectum suffers in a very similar manner: there is, at first, tenesmus, with frequent motions; and afterwards, should the tumour acquire a large size, the fæces will be retained. At this stage of the disease inflammation frequently supervenes, and may prove destructive to life, by extending to the bowels or over the peritoneal membrane. In some cases I have known a very alarming hemorrhage to supervene, and this has been repeated many times at uncertain intervals, in consequence of which the patient has been greatly debilitated. I have a patient now under my care whose pelvis is completely blocked up by a very large tuberculated uterus: some months since the effusion of blood so frequently occurred, that her life appeared in jeopardy; by the careful use of the usual means employed in uterine hemorrhage it subsided, and I trust she is now getting on well, as she has not applied to me for several weeks; the last time I saw her she called at the Fore-street Dispensary, having walked about three-quarters of a mile. Tubercular enlargement of the uterus may be mistaken for disease of the ovarium, or pregnancy; from the former it may easily be distinguished, by its feeling so much more firm and immovable when examined through the abdominal coverings: in ovarian dropsy there is generally a sort of elastic feel, and not unfrequently, if the cyst be of large size, a tolerable distinct sense of fluctuation; a vaginal examination will at once solve the doubt; the uterus will be felt to be enlarged, and much heavier than when in a natural condition, and if the tumours be low down, the irregularity of its surface can be ascertained without difficulty; pressure with the finger sometimes, though not uniformly, is productive of pain.

The disease is not very likely to be confounded with pregnancy, for in its early stage there are none of the usual attendants on utero-gestation, viz., no amenorrhœa, no morning sickness, nor are there any changes observable in the breast, or in the areola surrounding the nipple; in the more advanced stages, when the

tumour has acquired so large a size as to be easily felt by the hand, the absence of motion will enable you to form a correct opinion regarding the presence or absence of a fœtus in utero.

Great pain is sometimes the result of pressure sustained by the nerves of the pelvis, and œdema of the lower limbs is occasioned in consequence of the interruption to the circulation through the returning veins and lymphatics. From an attentive survey of the symptoms described as characterising this disease, it will be seen that the effects are purely mechanical, and are the obvious results of pressure. It should be remembered, however, that these effects are in some cases such as to render the woman's life very miserable, and in others so much disturbance of function is produced, that her very existence is in imminent danger; the treatment, therefore, must be prompt and energetic, that, on the one hand, the tumour may be prevented from increasing, and, on the other, that the absorbents may be stimulated to increased action.

Treatment of Tuberculated Uterus. — There is good reason for believing that fleshy tubercle of the uterus is the result of slow inflammation, for if the progress of the disease be narrowly watched, it will commonly be found, that there are occasional attacks of pain, though, probably, trifling in its degree. Should this prove to be the case, from eight to twelve leeches may with great advantage be applied to the vulva, just within the os externum; their re-application to be determined by circumstances. If the constitutional symptoms should require the loss of blood from the general system, venesection in the common way should be had recourse to, not as superseding the use of leeches, but as an addition to the plan. A soluble state of the intestinal canal must be maintained, either by the daily employment of a common injection, or of any ordinary aperient. It is my practice afterwards to administer small doses of blue pill, combined with either the extract of hyoscyamus or conium. This plan ought to be persevered in until a trifling degree of soreness of the mouth has been produced. By this treatment, especially if aided by confinement to the recumbent position, I believe much relief may be afforded, for although in most cases the tubercle is not absorbed, yet, by quieting vascular action, its further progress may be arrested at its commencement.

I well recollect the case of a middle-aged female, who *twice* applied to me for relief (long intervals elapsing between her visits), who was rendered very comfortable by this plan of treatment; the uneasiness subsided; the tumour, which was about the size of a pullet's egg, and situated on the posterior part of the uterus, remained stationary: this person's health was not affected. Should great restlessness be present with general irritability of system, a full anodyne may be given at bed-time.

I have already stated, that where there is retention of urine, the catheter must be employed; difficulty will be experienced in the performance of this operation if the tumour be of large size; its introduction may be assisted by pushing the uterus a little upwards and backwards, and thus removing the pressure from the meatus

urinarius; a long, elastic-gum catheter is the best instrument you can use in these cases. Recollect, lastly, that the position of the bladder may be altered, and, therefore, the direction necessary to be given to the point of the instrument must be made to correspond with this altered situation.

If the tubercle be *very large*, and the abdominal integuments flabby and pendulous, the bladder will, in some cases, completely overhang the symphysis pubis. It becomes necessary, also, to attend to the rectum, and here, again, the pressure may be so great as to render it advisable to raise up the tumour with the finger before throwing up the enema. Acute inflammation of the peritoneum is occasionally set up; this is easily distinguished by the character of the pain, conjoined with the other symptoms attendant on peritonitis: the same powerfully antiphlogistic plan as would be required under other circumstances, must be put into practice without delay, or life will be speedily destroyed. By the plan just recommended to your notice, the disease is frequently stayed in its progress, and the female may enjoy many years of comparative comfort, experiencing no pain and no inconvenience, with the exception of a certain degree of weight and bearing down, or, if the tumour be situated posteriorly, an occasional feeling of tenesmus.

TYMPANITIS UTERI (*PHYSOMETRA*).

The formation and detention of air in the uterine cavity forms that peculiar disease called tympanitis uteri, or *physometra*. After a certain degree of accumulation, the womb contracts, and the wind is suddenly expelled, sometimes with an audible noise. Cases are recorded wherein, from want of irritability of the uterus, the organ has so greatly enlarged as to resemble pregnancy; but these are very uncommon occurrences. Physometra is a painful and very harassing disease, its very nature preventing the subject of it from appearing in company, for, as the uterine contractions are involuntary, she of course possesses no power of controlling them. The constitution of those who suffer from this disease is very generally weak and delicate, a collection of air in the cavity of the womb not being the only symptoms under which she is suffering, but one in common with many others. The air appears to be secreted by the menstruating membrane of the uterus, for, if pregnancy occurs, the disease is for a time, if not permanently, cured. I have seen no case of genuine physometra after impregnation. I know it has been said by some, that these explosions of air now and then take place at the time of labour; wherever this has happened in my own practice it has been invariably not the result of disease, but the simple expulsion of gas arising from the commencement of decomposition in the child, the fœtus having been always dead. It is possible, without care, for you to be mistaken with respect to the source whence the wind proceeds, air, as you know, being often suddenly and violently forced away from the bowel at the time of labour.

Treatment of Physometra. — The treatment of this disorder may be resolved into two indications — 1st, to restore the tone of the system generally; and 2dly, that of the uterus in particular. A very gentle laxative should at first be employed, which may be repeated as occasion requires, and then powerfully tonic remedies are required. From fifteen to twenty minims of the tincture of muriate of iron given thrice a-day in any aromatic menstruum will be found useful in most cases; or any other medicine of this class may be substituted, should iron disturb the stomach or bowels.

If hysteria, in any of its multiplied forms, should manifest itself, a draught, composed of compound tincture of cardamoms, ammoniated tincture of valerian, of each one drachm, camphor mixture one ounce and a half, will seldom fail in giving relief. Removal to a different air, and in the neighbourhood of some chalybeate spring, where your patient may "drink the waters," is another remedial measure of great efficacy. Exercise, to a certain extent, is necessary; but fatigue must be avoided. Riding on horseback is to be preferred, where practicable. The second indication is fulfilled by directing an astringent solution to be injected into the cavity of the uterus, by means of the elastic-gum bottle and curved pipe, heretofore recommended to your notice. Perhaps, nothing will answer your purpose better than the sulphate of zinc dissolved in water, the strength about three grains to the ounce, at first, which may be gradually increased, should it be deemed necessary. You may quiet the female's mind by assuring her that, so far as the uterus is concerned, there is no danger whatever; that it is a mere symptom depending upon a deranged condition of the health, and that as the one improves the other will also.

LECTURE XI.

Polypus of the womb: polypus not confined to the uterus; situations of polypus uteri various; texture; colour; generally distinct growths; vascular; insensible; difference in size; may be combined with other diseases; no assignable cause for its production; its growth slow; sometimes spontaneously cured. Symptoms of polypus: leucorrhœa; hemorrhage; fœtid discharge; bladder and rectum sometimes affected; dyspeptic symptoms; Sir Charles Clarke's case; examination per vaginam; diagnosis easy; tumour resembling polypus; when small polypus does not obstruct conception, prognosis favourable. Treatment: various plans proposed for its removal; ligature; description of instrument required; mode of using it; avoid the uterus; different periods of time elapse before ligature comes away—.After-treatment; polypus of vagina.—Moles: various substances called mole; Vogel's definition; two distinct forms of moles; symptoms; treatment.—Calculus of womb; symptoms; treatment; worms.

POLYPUS OF THE WOMB.

Tumours of a polypoid kind, you are aware, Gentlemen, are not confined to the uterus, they are frequently seen to grow from other parts of the body; *uterine polypus*, the disease now under con-

sideration, is not common in very early life, although very young girls have been known to be the subjects of this affection. From different parts of the uterus this growth arises, viz., from the fundus at its upper part, from the cervix just within the mouth, or it may proceed from the lips of the womb exterior to its cavity. The texture of polypus varies; you sometimes meet with them as hard as cartilage, at others they are so soft and lacerable that they are easily broken down by the finger, and in this manner in a few cases a perfect cure has been effected. Some polypi, again, are of a white colour, whilst others are dark-brown; they are usually attached by a single peduncle, which may be either large and broad, or small and narrow, or they may adhere to the womb by several roots. They are generally distinct substances growing from the lining membrane of the womb; at other times, according to Denman, they are partly composed of the substance of the organ itself, "which shoots out so as to be intermingled with that of the polypus, or to form a covering over it." A number of little vessels, principally veins, may be observed ramifying on the membrane covering the surface of the tumour, and from these considerable hemorrhage sometimes takes place. No nerves have been discovered entering into its composition, and hence insensibility is its peculiar characteristic. The size of this growth varies greatly; it is at first so small that it is impossible to feel it, gradually increasing, if no remedial means be had recourse to, until it acquires the size of a child's head; these large polypi are very appropriately designated by Dr. Blundell by the term "scandalous," as they cannot by possibility occur without gross neglect on the part of the medical attendant. In most cases there is no other uterine disease present, but we should not forget that there may be a complication with some other disease, such as scirrhus, which is in its nature fatal; where there is no such combination, there may be prolapsus or inversion.

Causes. — Polypus has been supposed, by some, to be the result of some accidental injury inflicted upon the womb, either during labour, or otherwise. This opinion is not, however, well founded; it appears to be a spontaneous disease, and often occurs in women previously healthy, and sometimes in unmarried females. The growth of the tumour is very generally slow, many months usually elapsing before the attention of the practitioner is directed towards it, and indeed women may die of other diseases without any suspicion having been entertained of the existence of polypus, provided it be of small size. Cases are recorded where the polypus has fallen off spontaneously, apparently from pressure on its peduncle.

The *symptoms* attendant on this form of uterine affection are the following: in the first place there is a greater or less degree of mucous discharge, often, although at irregular intervals, mixed with blood; this latter symptom is occasionally profuse, and this is a fortunate circumstance for the female, as it will lead to a more

careful investigation of the true nature of the disease. Whilst the discharge is trifling, the patient is probably supposed to be suffering under profuse menstruation, from which, however, it is to be distinguished by the irregularity of its flow. When the blood is retained for a time within the cavity of the womb or the vagina, decomposition occurs, and this will render the mucous discharge dark in colour, and will also communicate to it a very offensive smell. Do not imagine from this circumstance that the disease is malignant; the entire absence of pain, or at least its comparatively trifling degree, will soon convince you that such is not the case. Sir Charles Clarke observes that coagula of blood are occasionally voided of a ring-like form, produced in consequence of a certain quantity of blood adhering to the surface of the tumour, and there coagulating; it at length slides off, and comes away. I have never noticed in my own practice these ring-like coagula. A sense of weight, uneasiness, and bearing down, are early experienced; all these symptoms of course increasing as the tumour enlarges. In very large polypi the neighbouring parts, viz., the bladder and rectum, suffer from pressure; the uterus generally descends, and from the stretched state of the broad ligaments, pain will be experienced in the groins.

As in every other disease of the uterus, so here, the stomach intimately sympathizes, various symptoms characterising dyspepsia manifest themselves; these symptoms differ according to the different degrees of irritability of the individual. For example, you may have simply want of appetite, or there may be nausea or vomiting. When these tumours form at the fundus uteri, they gradually increase in size, the womb enlarging and its mouth opening until it passes through and projects into the vagina. If nothing be done for its relief the enlargement goes on, and the tumour will at length be *seen*, lying between the thighs of the female, and then it belongs to the "scandalous" kind. Sir Charles Clarke relates a case of polypus, which happened to an unmarried female, and which completely filled the cavity of the pelvis; this was of the hard kind; and after its peduncle was cut through, could only be removed by means of a pair of midwifery forceps.

Before the tumour has passed into the vagina, or at any rate before it occupies the lower part of the uterus, a vaginal examination will not detect it; but when it is situated lower we ought not to mistake it. Recollect, it is a firm, round, smooth, and insensible tumour, perfectly unattached to the parietes of the vagina; the finger can therefore be passed around it, and from the insensibility of the mass, pressure, or even a scratch with the finger-nail, gives no pain; but although the substance itself is insensible, yet it grows from a very sensible part, viz., the uterus, and therefore unless the examination be conducted with gentleness, pain will be experienced; and this circumstance might deceive an inexperienced practitioner. Where the body of the polypus is small, we are sometimes enabled to pass up the finger beyond it, and dis-

tinctly feel the stalk or peduncle passing into the os uteri, but not being attached to it. Where the stalk is fixed to the cervix uteri, the finger can only be passed on one side, the attachment preventing it from being carried completely around it; to use the language of Dr. Gooch, in one case the stem is completely surrounded by the os uteri, in the other it is only semicircled by it. Where, on the contrary, the tumour grows from the exterior of the uterus, from the outside of one of the lips of the os uteri, the whole of its attachment can be distinctly felt to be *without* the uterus.

The *diagnosis* in polypus is unattended with difficulty, indeed it is scarcely possible to confound it with any other affection, with *probably* the exception of chronic inversion, and the cauliflower excrescence. I speak doubtingly, because the mistake is not very likely to occur; from the former it is at once distinguished by its characteristic insensibility, and by an attentive inquiry into the history of the case in its earlier stages: it differs from the latter by not being accompanied by any watery discharge, by its being a single tumour attached to a stem, which in most cases passes *through* the os uteri, whereas the cauliflower excrescence is composed of an indefinite number of lobules of various sizes, connected to the *outside* of the mouth of the womb, often extending over a considerable part of its surface.

It will be right to mention one variety of disease, which from the symptoms it produces bears so near a resemblance to polypus that it might, without very great care, be mistaken for it. This tumour is insensible, grows from the interior of the uterus, and passes through the os uteri; it is therefore encircled by it, but there is no distinct peduncle or stalk. Its surface also differs from polypus; instead of being smooth and rounded, it appears rough and irregular. Hemorrhage and other symptoms present in polypus are observed here. This form of complaint is fatal, and arises from a diseased condition of the organ generally, which is often found considerably enlarged; relief has in some few instances been obtained by removing portions from time to time by means of a ligature; the effect is, however, but temporary, as the tumour is reproduced in a short period of time, so that sooner or later the patient sinks under its influence. Whenever, therefore, an operation is decided upon, the mind of the female and her friends should be prepared for such a result.

The existence of polypus, if it be of small size, does not interfere with the process of conception or gestation; in some cases the contractions of the uterus, after the expulsion of the child and placenta, have separated the mass, and thus effected a perfect cure.

Prognosis. — This in true polypus may always be favourable, provided an operation be performed in due time. Many unfortunate females have nevertheless fallen a sacrifice to the inattention or ignorance of the medical man, who, being content with treating symptoms only, without ascertaining the cause which has produced

them, has considered the case to be one of common menorrhagia, and has gone on prescribing his astringents, until, from the frequent repetition of the discharge, his patient's strength has been exhausted, and her sufferings terminated by death. Such an occurrence, however, Gentlemen, is most disgraceful; for by attention to the symptoms, and careful vaginal examinations, the true character of the affection is without difficulty ascertained, and by a very simple, bloodless, nay, even painless operation, the disease is removed and *permanently* eradicated, there being no disposition in the uterus again to renew it. I well recollect having a patient sent me from the country, some few years ago, who was said to be labouring under a malignant and consequently fatal uterine affection. The case was decided as hopeless; but it was thought advisable that she should have the opinion of a London obstetric before she died. The symptoms under which she laboured were those just described to you; by an examination per vaginam a small polypus was discovered protruding through the os uteri; a ligature was applied around it, and in the short space of one week, instead of this lady returning to her habitation in the country to die, I had the satisfaction to pronounce her perfectly cured.

Treatment. — Removal of the morbid growths is the only plan which can be adopted, but various means to effect this have been recommended, viz., excision, cauterization, tearing it away, and the ligature; the latter method is, however, invariably had recourse to in the present day, and, therefore, it will be needless to take up your time in describing the others, except by simply stating that small polypi of the softer kind (the substance of which has been such as not to bear the pressure of the ligature) have occasionally been removed by the thumb and finger, an interesting example of which you will find recorded in Dr. Gooch's work on the "Diseases of Women."

Removal of the Polypus by Ligature. — The best instrument you can employ for the cure of polypus, is the double canula of Levret, as improved by the late Dr. Gooch; this instrument, you perceive, consists essentially of two straight silver tubes, about eight inches in length. There is a third piece composed of a double tube at its lower, and two rings at its upper extremity, and these joined together by a long, thin, silver rod; these tubes and rings are just large enough to admit the two other long tubes already shown you, and thus to form the whole into one piece. Different kinds of ligature have been recommended; the best, in my judgment, is the gold twist, easily procured at any gold-lace warehouse. The advantage of this material is, that it possesses firmness, and also a sufficient degree of flexibility to allow of its application without difficulty. The aim of the operator is to pass this ligature around the stem of the polypus, and, therefore, in the absence of any particularly urgent symptom, it is better to wait, and make no attempt for this purpose until the finger can be passed beyond the body of the tumour, and the pedunele easily reached. There will, in this case, be comparatively little danger of including the os uteri

in the ligature, as it will then be considerably dilated ; if, however, threatening symptoms should make their appearance, you would be justified in making an effort for its removal, even although, on an examination, the polypus might be felt to be wholly contained within the uterine cavity. Before commencing the operation the instrument is to be prepared in the following way : — Pass one end of the ligature up one of the tubes and down the other, so that the centre of the ligature may extend from the upper part of one tube to the upper part of the other, and thus the loop is easily formed. I usually thread the third piece also, by carrying the ligature through the corresponding rings and tubes, taking care that the gold twist is of sufficient length to allow of the tubes being freely moved about prior to their junction. The female being placed on her left side in the usual obstetric position, the two canulæ thus armed with the ligature are to be carried up the vagina as high as that portion of the stem of the polypus which you are about to tie ; one of the tubes is to remain in that position whilst the other is to be removed, and carefully carried around the polypus until it again meets with the other. By this manipulation it is quite clear that the peduncle will be completely encircled by a loop of the ligature ; the third part of the instrument is then to be slipped over the long tubes in the way now shown to you, and the ends of the ligature are to be tightened and carried through the rings or shoulders situated at the lower extremity, where they are to be firmly secured.

It is a point of immense importance, in the application of a ligature, to avoid including any portion of the uterus within its grasp. Where there is inversion this accident might occur ; and, indeed, it did happen to no less celebrated a practitioner than Dr. W. Hunter. Where there is no inversion, if the stem be large, and especially if it grow from the mouth of the womb, this part (the os uteri) might be tied, and although it perhaps does not of necessity follow that the woman would die, yet it is certain that a great aggravation of pain would be the result. The polypus, I have said, is insensible ; and it follows, therefore, if nothing but this morbid growth be encircled by the ligature, there will be no pain ; whereas, if a part of the womb be included, great pain will be immediately felt. The presence or absence of pain, then, will enable you at once to determine whether the ligature be properly applied or not, and it must be slackened or tightened as circumstances may require, or even, in some cases, altogether removed, and reapplied. Where the stem is attached to the fundus uteri, great difficulty would be experienced if it were necessary to apply the ligature around its upper part : fortunately no such necessity exists ; it has been found by experience, that if the body of the polypus be passed, and the *lower* part of the stem encircled by the loop of the ligature, the cure will be perfect, as the whole of the stem will moulder away when the body has been removed.

The time occupied in the performance of this operation varies

according to the size of the stem which has to be cut through; where this is very small, a few days only elapse before the cure is completed; whilst in others, ten or fifteen days may be required: again, in some few instances, the first application of the ligature has immediately separated it. The instrument must be left in the vagina, the female kept in bed, and strictly cautioned to avoid unnecessary movement of her body; and when she does alter her position, she should be directed to steady the instrument by holding it in her hand, lest some of the soft parts should be injured. No medicine will be required, unless there be a feverish excitement of the vascular system, when a moderately antiphlogistic plan should be had recourse to.

Before the use of the ligature, the rectum and bladder should be thoroughly emptied, the former by means of castor oil, or a common enema. The advantages of this plan are obvious, as the female will be enabled to lie perfectly quiet for some time afterwards. Should there be great restlessness, or inability to sleep, an opiate must be administered; and for this purpose the acetate of morphia is well adapted. The ligature is to be tightened daily, until, after a longer or shorter period, the stem is cut through. The substance of the polypus, in many cases, will be found to be, in a great measure, dwindled away. Observe the preparation now exhibited; it appears a mere membranous bag, whereas, before the application of the ligature, it was firm and hard, about the size and shape of a small pear; in the larger and more solid polypi the shape is retained after the peduncle has been cut through; their removal from the vagina is easily accomplished by the hand; or if the mass be of large size, the midwifery forceps may be required, as in Sir Charles Clarke's case. During the process of cure there is often a very offensive discharge, disagreeable to the patient and her friends also; this may be regarded as a favourable symptom, as it indicates incipient putrefaction, and, therefore, affords a proof that the ligature has been sufficiently tightened. To relieve the fœtor, a weak solution of chloride of lime, or cold decoction of camomile, may be injected into the vagina twice or thrice daily; the patient should be assured that this is a matter of no importance, or rather, the reason of this appearance properly explained to her.

After the extraction of the polypus, the vagina is to be well washed out with a solution of the sulphate of zinc, and this application continued so long as there are any discharges, whether of mucus or blood: these seldom remain for any length of time, and frequently there are none at all, so that your patient is speedily restored to her wonted health and strength; this, however, is not always the case, for where the disease has not been detected sufficiently early, the constitution suffers greatly from the long continuance of the drain, and a course of tonic medicine becomes necessary.

Polypus of the Vagina. — I stated, at the commencement of the lecture, that polypi were not confined to the uterus; and I would,

in concluding the subject, mention that you will sometimes find them adhering to the surface of the vaginal membranes, not entering the womb at all; they may be either hard or soft, and are, without difficulty, removed by ligature, the operation being similar to that performed in polypus of the uterus itself. If they are growing from the upper part of the vagina, be careful not to pass the ligature around the projecting os uteri.

MOLES IN THE UTERUS.

The term mole has been very injudiciously applied to denote various productions of the uterus. These products or excretions differ totally in their nature, and, therefore, ought not to be classed under the same name — for example, a blighted ovum, a polypous tumour, and a peculiar, flesh-like substance, occasionally formed in the womb, have all, in their turn, been designated as "moles." Vogel's definition is the following: "Mola — *massa carnea, vasculosa, ex utero excreta — ovum deforme.*" I restrict the term mole to those masses resembling flesh, which may form independently of sexual intercourse, and, therefore, are now and then observed in unmarried females, though this, I apprehend, is not a common occurrence. Of these moles there are two distinct, the first is nothing more than a mere coagulum of blood which has been retained for some time, perhaps for months, in the cavity of the uterus; it acquires a firm consistence in consequence of the removal of its more fluid parts, so that, when it is expelled, it seems composed principally of fibrin; a careful inspection will enable you to determine its nature. The second variety appears to be an unnatural product of the organ, varying in consistency, being hard in one case, soft in another; sometimes there is a single mass, at other times several; these have a vascular as well as cellular connection with the womb, and hence hemorrhage is a frequent attendant on this variety of mole.

If the subject of this affection be married pregnancy will be suspected, as there will be suppression of the catamenial flow, with enlargement of the abdomen, and, very probably, those sympathetic affections of the breasts and stomach which are the usual concomitants of utero-gestation. The womb being considerably enlarged, its parturient action becomes excited, and the woman experiences strong bearing-down pains, by means of which the mole or moles will be expelled.

Treatment. — Where no dangerous symptoms are present, the practitioner will do well not to interfere; but these cases are sometimes attended with fearful, not to say dangerous hemorrhage; and here the usual means for its arrest should be promptly had recourse to, viz., the application of cold, the employment of friction, the internal exhibition of the ergot of rye, and, should these means fail, you may, as a last resource (provided the os uteri be well dilated), introduce your hand and bring away the entire mass. If

you cannot effect this, in consequence of the rigidity of the parts, the temporary use of the plug might be of service.

Calculus in the Uterus. — Of this disease I have never myself seen an example. I mention it on the authority of Burns, who states that earthy concretions occasionally form in the womb.

The presence of calculus will, of necessity, be the cause of much uterine irritation, and be accompanied by the usual sympathetic affections. If allowed to remain, inflammation and ulceration are the consequences. Examination of the os uteri is the only method of detecting its presence, and this may be done either with the finger or a probe. If within, it should be removed, attending, at the same time, to any particular symptom that may arise. A case is related by Ganbius, where calculus was complicated with prolapsus uteri. After a length of time severe pains came on, and in an hour a large stone was expelled; next day a larger stone presented itself, but could not be brought away until the os uteri was dilated. From time to time, after this, small calculi were expelled: but, at length, the female recovered.

Worms in the Uterus. — In a few rare instances, after considerable irritation of the womb, combined with a fœtid discharge, worms have been discovered passing away with the secretion. The treatment consists in the injection of strong decoction of aloes, or of some bitter infusion, as wormwood, &c.

LECTURE XII.

Hydatids of the uterus; description of; sometimes many, at others single; size various; colour generally white; opinions respecting their formation; seldom occur in unmarried persons; generally combined with utero-gestation; symptoms; how to be distinguished from advancing pregnancy; mechanical effects; diagnosis; after a time the uterus begins to act; practitioner often not called until this period. — Treatment: their growth cannot be prevented; nothing required in early stage. — Treatment when hemorrhage supervenes: endeavour to excite uterine action; application of cold; ergot of rye not in all cases to be depended upon; discretion required respecting stimulants; plug; external pressure; introduction of the hand; after treatment. — Single hydatid of the uterus; hydrometra of the ancients; symptoms neither dangerous nor alarming; illustrative case; little or no treatment required. — Concluding remarks.

HYDATIDS OF THE UTERUS.

The disease called hydatids is not a peculiar production of the uterus, as it is often found in other parts of the body; neither is it confined to the human subject alone, some animals, the sheep especially, are frequently affected by it.

Hydatids, according to the Linnean system, constitute a tribe of the genus tenia, and belong to the class and order of intestinal

worms. They are characterised by being furnished with a vesicle, which is sometimes attached to them posteriorly, or in which some of them are altogether enclosed. They occasionally exist singly in the uterus, but more generally hang together in clusters, each little vesicle being attached to its fellow by a very delicate filamentous thread, the whole presenting an appearance very similar to a bunch of grapes; they are connected with the lining membrane of the womb by a thickish substance, resembling fibrin, having, nevertheless, a bloody appearance when first expelled from the uterus. The size of these vesicular bodies varies, some are *very small,* whilst others are as large as the egg of a thrush; when macerated and perfectly freed from blood, they are generally colourless. Dr. Baillie, however, states that he has, in many cases, seen hydatids of the liver of a pale amber colour.

Various opinions have been entertained with regard to the formation of uterine hydatids. As they so commonly exist in connection with a dead ovum, some have attributed their origin to this circumstance, whilst others believed that the death of the ovum has been the *effect* of the previous existence of hydatids in the cavity of the womb; that, in truth, these animalculæ were the actual devourers of the fœtus. Dr. Blundell, late of Guy's Hospital, has preparations showing this work of destruction in progress. I have never seen a case of uterine hydatids in an unmarried female, and am not aware that it has been observed by others; still it would be wrong to assert that these bodies cannot possibly form without sexual intercourse; and, therefore, if called to an unmarried woman, from whose uterus hydatids were growing, I should not feel justified in expressing an opinion which might prove injurious to her reputation. Wherever there exists a reasonable doubt, it is but an act of common justice to give the patient the benefit of such doubt.

I have stated to you that married women are very generally the subjects of this disease, and not only married, but in a state of pregnancy; the symptoms, therefore, at first are those which are attendant upon that condition, but after the death of the ovum the signs of pregnancy disappear. The uterus, instead of diminishing, increases in size, in consequence of the enlargement of the hydatids within its cavity; and, therefore, it often happens that the medical man, as well as the patient, is deceived, as they imagine pregnancy to be still advancing. There is this marked difference, however, between the two: the enlargement which is the result of conception is slow, whilst that from hydatids is very rapid. Again, there is the absence of the sensation called "quickening," although there may be a kind of indistinct flutter perceived by the patient herself, probably caused by flatus; or, perhaps, it may depend upon that power of contraction which the hydatids themselves possess. Sir Charles Clarke states, that although hydatids in other parts have this power, yet it has never been observed in those of the womb: it, however, by no means follows that because they have not been

seen to contract *out of the body*, that they therefore never contract *within* it; indeed, a presumption to the contrary may, I think, be fairly entertained.

Again, in contra-distinction to pregnancy, I may observe, that with this increasing tumid condition of the abdomen, the correspondent changes in the breasts, so commonly observed in pregnancy, are absent; they become flaccid, diminishing, rather than increasing in size. The uterus itself, when examined through the abdominal coverings, will be felt to be distinctly enlarged, but it does not oppose so firm a degree of resistance to the hand as the impregnated womb; and in some instances, where the parietes of the organ are preternaturally thin, an obscure sense of fluctuation may be easily felt.

Symptoms. — The usual symptoms of uterine irritation are present in this disease, namely, pains in the back, loins, and fore-part of the pelvis; the stomach is often sympathetically affected; there is loss of appetite, nausea, or vomiting. As the womb increases in size, various unpleasant symptoms, which are the mere mechanical effects of pressure, will be produced; thus the functions of the bladder and the rectum will be interfered with. Attention to these organs forms a very important part of the duty of the practitioner, as it is probable that several months may elapse before symptoms, demanding any but palliative measures, manifest themselves.

It is thought by some that there is a disposition in the uterus to remain in a quiescent state during nine months, the usual period of gestation. My own experience does not corroborate this opinion, the time appearing to depend principally, if not entirely, upon the degree of irritability of the uterus. In some women a greater degree of distention will be borne than in others, before the organ is sufficiently irritated to be stimulated to action. Before this time, there is, in most cases, a discharge of pale, limpid fluid, resembling water, without colour or smell, more especially if the female make use of any considerable exertion, or be subjected to any sudden shock, such as a blow or a fall. This effusion arises from the bursting of the vesicular bags, and the consequent escape of their watery contents. These discharges occur in gushes, and at intervals only, a circumstance worthy of being retained in your memory, because it will assist in forming a correct diagnosis, as there is another disease of the uterus, the cauliflower excrescence, in which discharge of water forms a very prominent symptom; but in this latter affection, it proceeds from the uterus in a constant and uniform drain, and not in occasional gushes. From those large and frequently repeated effusions of water, which now and then takes place for weeks, and sometimes for months during the pregnant condition, and which appear to arise from a diseased state of the membranes of the ovum, we may distinguish this disease, by observing that all the symptoms of pregnancy have subsided, a subject which has already been referred to. I may just remark, in passing, that although the membranes of the ovum are not in a

sound state, yet these discharges do not interfere materially either with the general health of the individual, or with the process of gestation. Perhaps it may be asked, why *disease* should be inferred if no inconvenience be necessarily produced? My opinion is formed from the two following circumstances: first, because these effusions are certainly not natural; and, secondly because in these cases the placenta will often be found morbidly adhering to the sides of the womb.

After an uncertain period of time, the distention of the uterus is such as to produce an active state of contraction, when, from the bursting of a large number of the vesicles, water is discharged in considerable quantities. But the discharge is not often merely water, for at this period it is usual for a very alarming and dangerous hemorrhage to supervene, in a degree sufficient to place the life of the patient in immediate and imminent peril, and if it be not speedily arrested, her destruction is certain. If any doubts had previously existed regarding the true character of the disease, they may now be set at rest by examining what is passing away, for by the uterine contraction the filaments or stalks, already described as connecting the vesicles together, are broken off, and hence there are frequently bunches of unbroken hydatids mixed with the water and the blood. They are sometimes of large size, at others small and exceedingly delicate. Here is a specimen of the former variety, presented to my museum by Mr. Cox, of New Bridge-street; and here is an exceedingly beautiful preparation, showing the latter, the gift of Mr. Finer, of Kingsland-road. Observe another preparation in which the hydatids have formed within the *substance* of the womb itself.

It is very probable that no reference will be made to the medical practitioner before the occurrence of the alarming symptoms just noticed, and he therefore finds himself suddenly called upon to act in a case of great and urgent danger, where the utmost promptitude of treatment is required. Many of these cases do not admit of a radical cure, even where the efforts of the womb have expelled the whole of its contents, for they are apt to be reproduced, when the same dangerous symptoms will be renewed.

Treatment of Uterine Hydatids. — There are no known remedies which will prevent either the formation or growth of uterine hydatids, nor do we possess any means whereby we can procure their expulsion in the more early months; all that can be done is to explain to the female the nature of her disorder, and to attend to any symptoms that may arise, patiently waiting until, from the distended state of the womb, its extraordinary action is excited; and this, as before stated, will occur, sooner or later, varying greatly in different individuals; the sooner this contraction takes place, the better will it be for the patient, as the blood-vessels increase in proportion to the enlargement of the uterus, and, consequently, are of smaller size in the earlier months. The os uteri, under these circumstances, is usually considerably dilated,

so that the finger can, with ease, be introduced into the cavity, and the hydatids distinctly felt. If, however, the *hemorrhage* be not alarming, no manual interference of this kind is either necessary or proper: the main object of the practitioner is to control the hemorrhage; to this purpose all his efforts must be directed. The flow of blood, be it remembered, is in some instances so excessive, that the female's life is in immediate peril, the gushes being as profuse as during the puerperal condition; indeed, they *appear* much more so in consequence of the large quantity of watery fluid with which they are mixed. In the attempt to restrain these bleedings, we must not forget that the only effectual method consists in exciting a general, perfect, and permanent action of the muscular fibres of the uterus, without which its renewal is certain. Confinement to the recumbent position is imperatively required, and every circumstance carefully avoided, which would be likely to produce either bodily or mental excitement. In some cases (that they are rare must be admitted) this plan of treatment, combined with great attention to diet, is all that is required, especially where the action of the uterus is powerful; of course no nutriment, of a stimulating kind, should be allowed, and everything should be received into the stomach nearly or quite cold, caloric, as you know, having a great tendency to excite the action of the heart and arteries. Next, in the list of remedial means, I would place the application of *cold:* a bladder, containing pounded ice, as recommended, in a previous lecture, should be placed upon the lower part of the abdomen; a piece of ice has by some been recommended to be introduced within the vagina, by which a sudden state of contraction is often procured.

The *ergot of rye* may be employed in these cases with some degree of confidence, much more so than in the disordered condition of the function of menstruation, called menorrhagia. From what I have myself observed, respecting the operation of this medicine, I infer that its action cannot be relied upon, unless the uterus be *developed* and endowed with its *extraordinary* power of contraction, nor even then unless that action has been already excited; in other words, that it will never *produce*, although it will increase, when already present, the parturient efforts of the organ; and, consequently, that even during labour, when there is a complete suspension of uterine action, its effects are by no means so certain as when the pains are regular, but trifling in degree; it does not appear to me to have the power of *communicating* irritability to the womb. In the disease under consideration, however, there is a developed condition of the womb, and there are also the regular expulsatory pains: your intention in giving secale is to increase their force, that the diseased mass may be the more quickly detached and expelled, and thereby to obviate the danger to be apprehended from the continuance of the hemorrhage. About half a drachm of Battley's concentrated solution should be administered, at occasional intervals; the medicine may be taken

in a glass of water, or in brandy and water, or any other vehicle, according to the judgment of the practitioner.

Discretion is required in the *use of stimulants.* I have already stated that they are altogether inadmissible in the early stages, before the discharge of blood is considerable, and even in the more copious hemorrhagies, where a tendency to faintness has supervened, they should not be too hastily had recourse to, for under these circumstances, not only is the momentum of the blood greatly diminished, but that fluid coagulates much more speedily; by this coagulation clots are formed, which, by adhering around the orifices of the bleeding vessels, act as little plugs, and afford a temporary barrier to the farther eruption of blood. Now, the obvious effect of a stimulus is the excitement of the arterial circulation, in all probability the removal of these coagula, and then, as a necessary consequence, the renewal of the hemorrhage. Do not consider the observation just made to contain a general condemnation of the use of all stimulants; I believe we shall scarcely ever be able, *altogether,* to dispense with them; but I wish to impress upon your minds the propriety of waiting until the symptoms, really demanding their employment, have manifested themselves. When hemorrhage has continued for a lengthened period, and the attacks of syncope becomes frequent and formidable, a stimulant is peremptorily required, for without it the patient, in many cases, would never rally; a tablespoonful of some ardent spirits (and of these brandy is to be preferred) must be given undiluted or mixed, with part of the yolk of an egg, and repeated at such intervals as the peculiar case requires.

A well applied *plug* is productive of advantage where the uterus is not greatly increased in size, especially if its mouth be nearly closed; this will not only assist in restraining the flow of blood, but by its presence in the vagina will excite the uterus to action, and thus afford permanent as well as temporary relief. Pressure upon the uterine region should be maintained by the application of a pad, round the lower part of the abdomen, around which a tight bandage or belt is to be fastened; a small book, enveloped in a napkin, forms an excellent pad for this purpose, and this is one which can be obtained without any delay, which is of great advantage in cases of such emergency.

Notwithstanding the assiduous employment of all these means, there are instances wherein the dangerous symptoms continue or increase, and the constitutional powers of the female appear to be rapidly sinking. This will be manifested by repeated attacks of syncope, by a general coldness of the surface, by a rapid though feeble pulse, combined with that pallid and peculiar cast of countenance exhibited in hemorrhagic patients: in this extreme form of the disease *manual interference* is necessary. As soon as the os uteri is sufficiently dilated, the hand is, with great caution and gentleness, to be introduced into the cavity of the womb, and the hydatids carefully separated from their attachment, taking especial

care that the whole mass be removed before the hand is withdrawn. This operation is attended not only with difficulty, but with some degree of hazard, and this will be increased if the attempt be made too early, for the womb is not in so dilatable a condition as at the time of labour, and, therefore, resists rather than yields where force is applied; and hence, if Dr. Blundell's motto "*arte non vi*" be disregarded, rupture of the uterus might possibly be induced.

After Treatment. — After all the hydatids have been expelled by nature, or removed by art, we must treat our patient precisely in the same manner as if she had been recently delivered, and her labour complicated with hemorrhage. The bandage around her abdomen is to be tightened, and no change of position allowed: our feelings sometimes get the better of our judgment in this respect, for in consequence of the often-repeated desire expressed by our patient, we permit that change. This restlessness, however, is merely the effect of loss of blood, and will not be relieved by any alteration in her bodily position; even were it otherwise, perfect quietude must be enjoined, as the vital powers are so exhausted, that a movement, even from one side to the other, would probably produce such agitation that fatal syncope might be the result. When the circulation has become somewhat tranquil, the female may be placed comfortably in bed; but my advice is, that after every serious case of hemorrhage the practitioner should be in the room to give necessary directions, and especially to prevent her body being raised from the recumbent posture during the time of undressing. I generally recommend a mattrass to be placed on the floor, upon which the patient is to be placed, whilst the nurse is attending to her bed, &c.

After hydatid disease, there is sometimes a tolerably copious secretion of milk, which soon subsides after a laxative has been administered. Lastly, it is often necessary, in consequence of extreme debility resulting from this affection, to employ tonics and cardiacs for a long space of time, a return to perfect health and strength being often very protracted and tedious. Everything likely to increase tone in the general system is here required, avoiding, of course, all local stimuli.

SINGLE HYDATID OF THE UTERUS.

Hydrometra-Ascites Uterinus. — "There are upon record," says Dr. Denman, "many histories of this dropsy, which is described as a collection of water, or thin gelatinous fluid, in its cavity, the os uteri being so perfectly closed as to prevent its escape." The doctor, however, in common with other practitioners who have directed their attention to uterine diseases, is not inclined to believe that cases of this kind ever exist, as it is difficult to conceive that large collections of water can take place in a womb, as this organ communicates with the os externum by an open mouth, and, consequently, the fluid would of necessity escape

as fast as it was secreted. Moreover, it has been noticed in several instances that after the water has escaped a membranous bag has been expelled, which, on being blown up with air, put on the form of the womb itself, indeed, appearing like the lining of that organ. From this circumstance it has been considered probable, that what by the older authors was designated uterine dropsy, really belongs to a class of hydatid disease, the difference being this: that instead of consisting of bunches of little cysts, there has been a single one of *large size*, sufficient to distend the uterus to a very considerable extent. Cases of this nature, you may suppose, are very rare, when I tell you Sir Charles Clarke states in his work that he never witnessed an instance of the kind.

The *symptoms* characterising the disease are those which are very likely to be mistaken for preganacy. There is suppression of the catamenial flow, with stomach irritation; the breasts are also sympathetically affected. I cannot, however, better describe these symptoms then by relating the only case of the kind which has come under my own personal observation. The lady was under the care of my esteemed friend, Mr. Austin, of Red Lion-street, Clerkenwell, a surgeon in very extensive practice. She supposed herself to be pregnant, the menstrual function having been suspended, and the uterus gradually increasing in size. After the lapse of some months, labour pains came on, and Mr. Austin was sent for, the patient believing she was about to miscarry. An immense quantity of water passed away, and the uterus returned to its original unimpregnated size. The female soon recovered, and has since borne several children. This, then, is the history of these cases: the womb enlarges to a greater or less extent, according to the degree of irritability of that organ; then contraction occurs, and the watery contents of the bag are evacuated; and, lastly, the bag itself is forced away. In this variety of hydatid growth there is no danger, as there is no attendant hemorrhage, and for this reason the doubt that probably existed, with regard to the nature of the affection previously to the occurrence of uterine action, will be of comparatively little consequence, especially as no particular treatment will be required. It will be proper, however, carefully to examine into the state of the patient's general health, and to apply such remedies as her peculiar condition may require. I have previously stated, that when the hydatids grow in masses or bunches, the disease is very apt to be renewed; here, on the contrary, the expulsion of the cyst is usually followed by perfect restoration, the patient being ever afterwards entirely free from this disorder. The proper functions of the uterus are only for a time interfered with. The accumulation of water is often very large; in the case just mentioned to you, as attended by Mr. Austin and myself, the account given by the patient was, that a pailful of fluid had been discharged.

I have now, Gentlemen, brought to a conclusion my remarks on the *function and diseases of the unimpregnated womb.*

Let me, before we part, advise you to pay great attention to uterine diseases; seek every opportunity of becoming acquainted with them; mark well their diagnostic signs; and, above all, aim at acquiring that manual dexterity, without which your examinations, *per vaginam*, will be worse than useless. By so doing you will be preserved from the commission of many blunders, saved from much mortification, and prove yourselves a blessing, instead of a curse, to the more interesting portion of mankind.

LECTURES

ON

DISEASES OF THE UTERUS AND ITS APPENDAGES,

BY M. LISFRANC.

LECTURE I.

ON THE TOUCHER, AND THE APPLICATION OF THE SPECULUM.

Common mode of examining the genital organs in women; points of importance unnoticed by authors; the lecturer's mode; the whole vagina should be examined, and especially the neck and body of the uterus; varieties in the position and condition of the neck; capacity of the vagina; the toucher by the rectum; variations in the body of the uterus; surgical anatomy of the parts; mode of introducing the speculum; examination of the neck through the speculum; circumstances which contraindicate its use.

The general rules for examining the state of the female genital organs by the touch, are sufficiently well known; most commonly we make our examination with the index finger of the right hand, moistened with some oily or mucilaginous substance. The finger passes first along the perineum, and is then made to enter the orifice of the vagina near its posterior commissure, in order to avoid touching the clitoris.

Such is a brief description of the common method, but a great many points of some importance have either been forgotten or neglected by those who have described the mode of practising the toucher. Thus, it is by no means indifferent whether we moisten the finger with oil, butter, or cerate, especially if the toucher precedes the application of the speculum. Cerate obscures the parts, and butter often sticks upon the parietes in such a manner, that it may be mistaken afterwards for some morbid secretion; oil, therefore, is in all cases preferable. In some females the neck of the uterus is situate so high up, that the finger can reach it with great difficulty. This peculiarly occurs in fat women, where the labia are excessively developed; in this case it is useful to place the woman on an inclined plane of from 25 to 30°, as in the opera-

tion for the stone, or on the edge of a bed, the legs widely separated, and the feet supported by a chair. The surgeon must separate with care the labia majora, in order that the hand may arrive directly at the opening of the vagina; by this means we gain at least an inch. In these cases, also, we should be careful to employ the general rule of placing the thumb between the great lips, and the three last fingers extended and separated from the index, between the thighs and against the perineum, which the medius may, in case of necessity, push up a little; at the same time we desire the woman to force down, and we endeavour to depress the uterus with the left hand applied to the abdomen above the pubes. Sometimes it is necessary to make the woman walk about for an hour or two before touching her. In this way I succeeded in bringing down the uterus of a female in the ward of St. Augustin, who had a polypus attached to the neck of the uterus: before using this precaution, I could not reach the pedicle at all.

In more difficult cases it may be well to introduce the medius and index fingers together; here the whole hand may be introduced, for the vagina will yield sufficiently to admit it, though the woman be not pregnant, or near the time of labour; but this requires great slowness and management, and the observance of the rules which belong more properly to the introduction of the speculum; we may hence, however, remark, that abstracting the difficulty of its introduction, exploration with the whole hand is more easy, and leads to more certain results than do one or two fingers.

In the common toucher we should always be careful to examine the whole length of the vagina, as the finger continues to penetrate, describing with its point various arches of a circle. I well remember having to repent the omission of this rule some six years ago, in the case of a woman whom I touched frequently, without perceiving a polypus of the size of a nut, which grew from the posterior and middle part of the vagina. In some scrofulous women, when we press the finger backwards, or on the sides of the vagina, we sometimes feel a crepitation produced by gorged or inflamed lymphatic glands, which give rise to certain accidents analogous to some affections of the vagina or uterus; it is sufficient to point out this error, or to prevent you from falling into it.

But it is especially the examination of the neck and body of the uterus which requires great dexterity and a perfect knowledge of this organ; and in the first place, if it be necessary to examine the whole circumference of the neck, it is essential to touch with both hands; for the pulp of one index-finger can touch and examine the vagina and neck of the uterus in that surface only which is opposed to it. To examine the whole circumference with one finger, would require that the arm execute a complete rotation, which is impossible. The neck of the uterus presents a great number of varieties, not only in different women, but in the same

women at different periods, and we can readily conceive how important it is not to confound these natural varieties with a diseased state of the organ.

It would be impossible for me to point out to you all their varieties; long practice on the living, and examination of the dead body, will teach you more than any description can do; however, a few considerations on the subject may be useful. At the period of the menses, and even a few days later, the neck of the uterus is more soft and voluminous than natural, and gives the same sensation to the touch as at the second month of pregnancy; the same state is observed after frequent sexual intercourse. During the menses, the orifice of the neck is also dilatable, and admits readily the first phalanx of the finger, which, when introduced thus far, feels a smooth tissue, like a serous membrane.

Hence, in these cases, our conclusions should be very guarded; at any other period the dilatation of the neck indicates some present or imminent malady of a severe kind. If the finger, instead of meeting a polished membrane, feels one which gives a sensation similar to that when we touch a mucous surface, there is certainly something wrong. The neck is also dilated during hemorrhage, or when the uterus contains a polypus; but then we have other symptoms to assist the diagnosis. In some women the neck naturally resembles an elongated cone, with the apex inferior, presenting a round orifice, as if it were made with a gimblet. Its length is very variable, and may extend even to an inch and a half; hence, the indications drawn by accoucheurs from the effacement of the neck of the uterus at different periods of pregnancy, are subject to numerous exceptions.

We should also avoid mistaking for a diseased state, those cicatrices which result from slight laceration of the neck during labour; they are hard, linear, and give the sensation to the finger of a small thick plate, on the edges of which the two lips of the wound are united. Finally, in old women the neck of the uterus becomes more contracted and wasted even than the uterus itself. The vagina becomes equally contracted round the os tincæ, and almost forms there a cul-de-sac. In other cases the neck projects either forwards or backwards, without there being any trace of disease, which we are not to conclude, unless there be present at the same time tumefaction and sensibility. Thus, women who are accustomed to receive men frequently have the neck always pushed backwards, with a slight interversion of the uterus; this arises from the circumstances, that during copulation the glans lodges in front of the neck, and pushes it back. Besides, you all know, that when an obliquity of the neck presents an obstacle to the touch, the neck of the uterus may always be brought into a more favourable direction by changing the position of the woman.

Other precautions are necessary when we wish to explore the body of the uterus. Some anatomists have erroneously believed, that the superior part of the vagina is as narrow as the inferior.

M. Cruveilhier has shown that its capacity is truly astonishing. This fact is important in the history of the toucher. In fact, if we confine ourselves to simply pushing the finger from below upwards, it soon reaches the attachment of the vagina round the neck, and exploration of the body of the uterus becomes impossible; but the capacity of the vagina at this part permits us to push up its parietes sufficiently high to examine, in most cases, the lower half of the body of the uterus. In the vaginal toucher we may also gain that by the rectum and hypogastrium.

To practise *the toucher by the rectum* requires long experience; the womb, which we feel through the recto-vaginal parietes, appears of an enormous magnitude, to which we should be accustomed in order to appreciate its just value; by this means we may reach as high as the middle of the uterus; but it is most applicable to an examination of the broad ligaments, which are touched with the greatest facility across the parietes of the intestine.

The volume of the body of the uterus is just as variable as that of its neck; but we may conceive how necessary it is to judge correctly on this point, when we reflect that a slight difference of volume may contraindicate an operation otherwise necessary. In general every irritation in the neighbourhood of the uterus attracts the blood to this organ, and always increases its size more or less, particularly any affection of the neck. Ventral pregnancy will cause it to swell one-third.

I have said the womb wastes in old age; if, then, at this period of life the neck should require an operation, should the uterus seem more developed than in an adult, it is a sign of too great engorgement, and an indication for deferring the operation. The position of the uterus often changes, without our being well able to assign the cause of this change. In women who have borne children it is lower in the pelvis; in women who cohabit much, it is inclined forwards; and as for more considerable displacements, of which most practitioners have made an essential disease, I consider them in general as a simple symptom of engorgement, and I have as yet found no reason for changing my opinion.

It may be well to remark now, that some women, especially those who come from the country, have the genital organs, though healthy, so excessively sensitive, that the least touch determines great pain, and even convulsive attacks. Bleeding, baths, opiate glysters, &c., are necessary to calm this state of irritability.

ON THE APPLICATION OF THE SPECULUM.

When we wish to judge simply of the size, consistency, or sensibility of the neck of the uterus, the finger is, without doubt, sufficient; but we must have recourse to the speculum in order to recognise the existence of excoriation, miliary eruption, or the nature and extent of various ulcers. I prefer the conical pewter tube to all others; but as the ordinary length of five inches is not sufficient

for all women, I have increased the length to seven, and have rejected the handle as useless.

Before we describe the method of introducing this instrument, it may be useful to say a few words on the surgical anatomy of the parts. In women who have not had children, the external orifice is not placed exactly in the same direction as the vagina; the posterior demi-circumference is formed by a transverse slip of skin and mucous membrane, called the fourchette. This fold, of various sizes, but always large in proportion to the distance between the anus and vulva, forms above and behind it a small cul-de-sac. From this disposition it follows, that if we at once attempt to introduce the speculum in the direction of the vagina, we push against this fold of membrane, cause great pain to the women, and fail.

It is necessary, then, to commence by directing the instrument backwards and a little downwards, in a line drawn from the orifice of the vulva to the point of the coccyx, and, when we touch the bottom of this cul-de-sac, to raise the instrument into the direction of the vagina. This dimensions of this orifice are also very variable; in virgins, it is in part closed by the hymen, which we should respect unless the indication is very pressing. It is useful to know, that in young girls it is extremely dilatable, more so than in adults. From the moment of the cessation of the menses its rigidity becomes greater and greater; so much so, that at an advanced age, instead of finding a simple ring which yields to the finger, we find an orifice which is hard, and, as it were, cracking under the least effort made to overcome the resistance; sometimes in these old women it scarcely admits the little finger, and the vagina presents smooth walls, and a very contracted cavity, instead of its usual folds.

From what I have said we may draw these conclusions, that in young girls, however narrow this orifice may appear, we may expect to dilate it sufficiently; — that in adults we cannot count on this so much, and should not use any speculum much larger than the apparent capacity of the orifice; — finally, in advanced life, we should be very guarded in the use of the instrument, and proceed with great caution and slowness, in order to avoid lacerations, which cicatrise with difficulty, and are caused even by very small speculums. It is the great labia which contribute chiefly to enlarge this orifice and the vagina, as we see during labour, when the head of the fœtus begins to traverse the vulva.

The same thing takes place when any large body is introduced into the vagina; hence the assistant who supports the great labia when the speculum is first applied, should be careful to let them go the moment the instrument begins to enter; without this the parts will be too much dragged, and the vagina, not being able to dilate, will oppose the free passage of the speculum.

You may now comprehend more readily the method of introduction. The woman must rest across a bed, supported on its

edge, the feet fixed on two chairs, and the legs sufficiently separated to permit the surgeon to place himself between them; a pillow should be placed under the head and another under the pelvis. The instrument should be oiled and warmed, for in winter the coldness of the metal may cause the vagina to contract, and may produce other inconveniences. I have seen one case in which this coldness determined excessive colic, and nearly all the symptoms of peritonitis.

We commence by touching, in order to ascertain with certainty the position of the neck. Without this previous examination, we run the risk of introducing the instrument in a wrong direction, and of being obliged afterwards, in order to find the neck, to execute various movements which irritate and injure the uterus; besides this, the toucher will give some preliminary idea of the volume of the neck, which may direct us in choosing the size of the speculum to be employed. With the left hand we separate the hair and labia; we take the handle of the instrument in the other, placing the thumb in the cavity of the speculum, and the two first fingers below the handle. The introduction should always take place slowly; if the fourchette extends far backwards, we should avoid any transverse pressure on the perineum, which would only make it more tense; it is even better to draw this part forward.

When the centre of the instrument corresponds exactly with the centre of the vagina, it must be pushed on, first in a line passing from the centre of the orifice to the lower part of the coccyx; and when it has penetrated about an inch in this direction, we make it execute a slight movement of rotation to bring it in the line of the sacro-vertebral angle. As the speculum advances, the woman feels herself compelled to make some involuntary efforts: the vagina presses the speculum on all sides, and presents at the extremity of the instrument a reddish ring formed by the contracted parietes of the vagina, having an orifice in the centre: but if the neck of the uterus is inclined to either side, then the orifice is usually seen on one side or other of this red ring.

This reddish tumour of the vagina, having some resemblance to the neck of the uterus, may lead to an error; but we should remember that the neck does not present any folds like the vagina, and is, besides, of a different colour. In a state of inflammation the neck is more brown than the vagina; in a state of health it is much more pale; however, to remove all doubt, it is well to push up gently the presenting part with a little tube of wood rounded at the tip; when, if it be the vagina, it yields to the least pressure. Sometimes the neck is so much inclined backward, that it cannot be brought into the field of the speculum. In this case the instrument should be drawn back an inch, and the handle raised upwards and forwards, in order to direct its apex between the posterior wall of the vagina and the neck, when this organ may be raised and caught in the orifice of the speculum.

When the neck is too large to be seen at one view, the speculum

may be moved from one part to the other, until the whole has been examined, but these manœuvres require that the neck should be completely insensible, otherwise they are not without danger.

When the speculum is well placed, we should introduce into its cavity a small mop, to clean the parts. The neck of the uterus, even in a state of health, is always covered with mucus, more or less thick, which may obscure any small ulcerations. Sometimes its lips, soft and hypertrophied, are applied exactly to one another, and conceal ulcerations of its inner surface ; in this case we should raise up the anterior lip with a female sound ; this is often sufficient to bring into view certain eating ulcers, or small tubercles situate within the neck, which are the commencement of cellulo-vascular polypi. For such examination, if we use the sun-light, the patient should be placed facing the light, and the surgeon must stand on one side ; a candle is easily managed by the assistant.

There are certain circumstances which contraindicate the use of the speculum, or render its introduction more difficult. Sometimes the hymen exists in whole, or in part, and the introduction of the speculum becomes so painful, that it should be absolutely renounced, unless the emergency is very pressing. If, however, there existed some severe disease of the internal organs of generation, it would be preferable to divide the membrane by a crucial incision, and to remove altogether the little flaps, taking care to choose as small an instrument as possible : the same observation applies to old women, on account of the great contraction of the vagina already noticed. Sometimes the vagina is traversed by membranary bands, which impede the passage of the speculum. I once found a circular membrane placed about one inch from the neck of the uterus, which divided the vagina like a diaphragm, and prevented at the same time the application of the toucher and the speculum. More frequently the vagina is contracted in its upper third into a funnel-like tube ; and this alteration involves all the membranes ; above this contraction it assumes its usual caliber. I have seen this disposition five or six times, and in one case was forced to traverse this narrow passage, in order to cauterise the os tincæ. Finally, in some cases the vagina is the seat of certain tumours, which must be removed, if we wish to form a passage for the speculum.

In speaking of the toucher, I mentioned some cases where the vagina was so sensitive, that the pressure of the finger produced the most disagreeable accidents ; it is still more necessary to calm this irritation before we use the speculum ; the presence of deep ulcerations of the vagina or neck of the uterus also contraindicate the use of the speculum : I was witness to a case of this kind, where the unreasonable introduction of this instrument gave rise to an enormous laceration of the vagina, hemorrhage, and death, in two hours. If the neck be surrounded by vegetations of such a magnitude that they cannot be embraced by the speculum, its application is useless. Finally, we should defer the application of this instrument when an extreme hypertrophy of the uterus is accom-

panied by a state of sub-inflammation of the organ; for as we cannot attempt to cauterise, or apply local treatment to the excoriations or superficial ulcers until the engorgement has nearly totally disappeared, the use of the speculum would be useless, and might be attended with inconveniences.

LECTURE II.

THE INFLUENCE EXERCISED ON THE SPECIAL DISEASES OF THE UTERUS BY ITS FUNCTIONAL DERANGEMENTS.

Total and temporary absence of menstruation in women; causes which produce this, and its treatment; error of supposing the uterus always free from morbid alterations before menstruation; period of the first menstruation; cautions for that period; capriciousness of this function; menstruation attended by great pain; sudden arrest and diminution of the menses; excessive menstruation; cessation of the causes in advanced years; affections of the uterus not most common at this period; excessive venereal desire.

In the former lecture we described at length the two chief means employed in the diagnosis of morbid alterations of the uterus, viz., the touch and the speculum. Before, however, we pass to an examination of its special diseases, it will be useful to consider the influence exercised on them by functional derangements of the uterus, — a study which is as necessary for the prophylactic treatment, as the etiology, and which has not hitherto been described by any author in a copious manner.*

The derangement of the uterus as regards menstruation, may be referred to four heads, viz., 1st, deranged menstruation at the period of its establishment in the young female; 2d, at any time during its usual course; 3d, at the period of the cessation of the menses; 4th, and finally, the various accidents which accompany their derangement of function.

1. *Absence of Menstruation.* — There are certain females who never menstruate. I have had occasion, within a period of ten years, to notice fourteen cases of this kind. The influence exercised by this state on the constitution varies according to the individual. Some of them, at each return of the menstrual period, become extremely sensitive, irritable, and ill-humoured; they experience dizziness, suffocation, a feeling of weight in the pelvis, colicky pains, &c., without the discharge of a single drop of blood. Other females arrive at an advanced age without experiencing periodic indisposition, but they are commonly women of infirm health, more or less emaciated, whose flesh is soft, flaccid, &c.; their yellow complexion announces suffering, and in some cases

* Certainly by no author in the original and copious manner of M. Lisfranc. — Ed. L.

they are harassed by cholic, diarrhœa, palpitation of the heart, headache, &c.

What are we to do in similar cases? Some physicians attribute these phenomena to the organization of the woman, and content themselves with a rational inactivity; others, regarding the absence of menstruation as the morbid cause to be combated, endeavour by all means in their power to establish this function. The remedies used for this latter purpose are frequently more injurious than beneficial, and increase the congestion of the uterus, by causing an afflux of fluid toward the pelvis. Hence the symptoms are frequently aggravated, and, persisting from one menstrual period to another, do not give the unfortunate patient a moment's repose.

Before we attempt any treatment, it is above all things necessary to assure ourselves of the cause which prevents the establishment of the menses. In many cases, the toucher reveals an engorgement of the uterus, which must be got rid of. In two instances of the kind, I have succeeded in bringing about a regular menstruation, by dissipating the state of congestion. One of the females has since become a mother. When this cause does not exist, and when the derangement is of many years' standing, the disease is in general beyond the power of art, and we should give over any attempt at re-establishing the function of the uterus. But we do not mean by this that the women are to be abandoned to their sufferings; we may supply the neglect of nature, and set up an artificial sanguineous evacuation. Thus, whenever the return of pains announce a menstrual period, blood should be drawn from the arm to the amount of five or six ounces; or five or six leeches may be applied to the arm, and the blood allowed to flow for a short time from the bites. These means may be aided by warm-baths, moderate exercise, and appropriate regimen; thus if the woman be feeble and not nervous, a nourishing diet with some tonics must be prescribed. When the nervous system predominates, we should employ narcotics in the form of frictions and clysters. If the pain, instead of returning periodically every month, should be continual, the indication is the same; we endeavour, by observing some aggravation of the symptoms, to fix on the period corresponding with the menstrual one; and if there be no remission, we must only choose a period at hazard, and employ the above-mentioned means at its monthly recurrence.

As it is necessary in these cases to make a deep impression on the constitution, the treatment must be continued for several months, and even years, but perseverance in this way will almost always effect a considerable diminution of the pains, or end by removing them altogether. To this absolute absence of the menses we may add their periodic absence during a time more or less considerable. I have seen females who menstruated only every four or six months, or even every three, four, or six years. In some of these cases the women suffer habitually, and the mode of treatment is the same as that which has been indicated for com-

plete absence of the menses; but sometimes they enjoy, to all appearance, the most perfect health. But we have to fear lest this deceptive calm may conceal some dangerous affection which will break out at a later period in some disease of the heart, some chronic pulmonary affection, or a latent peritonitis. I was acquainted with three young females who had never been pregnant, and who menstruated at very long intervals; they are all now dead. One was cut off by an aneurism of the heart at the age of 21; the two others died at the ages of 19 and 24, of tubercular phthisis. Hence I think it prudent to draw blood from the arm occasionally in cases of this kind. I have thus treated a woman of 36 years of age, who has not menstruated for ten years. The precautionary bleeding has preserved her in a good state of health.

2. *Period of the first Menstruation.*— It is generally believed that the uterus is free from morbid alterations before the period when menstruation usually commences: this is an error. M. Carron du Billards found a polypus accompanied with uterine engorgement in a child of seven years. Many women of an advanced age refer the commencement of their indisposition to puberty. Thus, I have had occasion to treat the wife of a lawyer, in whom general health commenced to give way before the period of menstruation. She experienced pain in the loins; constant sensation of weight, with pain in the pelvis. At first she was treated for gastro-enteritis; but I suspected a quite different cause; examination of the uterus showed a sub-inflammatory engorgement of that organ. This condition was combated by appropriate means, and the patient now enjoys perfect health.

The theory of menstruation might lead us to the same conclusion as these facts have established. The menses never appear all on a sudden. For a long time before their appearance the blood is determined towards the uterus; if the issue of the menstrual fluid meet any obstacle (and we know with what difficulty menstruation is in general established), this fluxion of blood, repeated every month, must naturally end in an engorgement of the organ. To this cause we must refer the lumbar pain, the weight which young girls feel in the pelvis, the consequent paleness of countenance, the puffiness of the face, the loss of appetite, of strength, the sense of suffocation with palpitation, which more than one physician has attributed to an aneurism, or to something still more vague, *a disease of the heart.*

What contributes still more to render the diagnosis obscure, is, that the female suffers much less at the commencement of the affection, and that a feeling of ill directed modesty prevents them, especially at this age, from explaining clearly the sensations and inconveniences which they experience.

The preceding observations prove how important it is in the prophylactic treatment of uterine disease, to favour as much as possible the establishment of menstruation in young girls. We do

not now speak of those who are healthy and strong, in whom nature can afford to make some efforts; but if the young girl be weak, let her be put on a nourishing diet, and take some slight tonics as soon as the premonitory symptoms of menstruation appear. Cold aromatic baths, with exercise in the open air and sun, are powerful auxiliaries. In cases of this nature also, we employ with advantage local applications, stimulant foot-baths, aromatic fumigations, small clysters very warm, warm injections of the vagina; warm cataplasms around the pelvis or to the vulva, dry cupping-glasses, flying blisters, a few blisters to the ankles or legs, to the inner and upper part of the thighs, seldom to the vulva, small bleeding at the saphena vein, &c.

When the foot-bath is employed, the water should rise up as high as the knees at least, to obtain all the advantage possible. I can assure you from experience, that the simple foot-bath to the ankles is more injurious than useful. If, on the contrary, symptoms of uterine congestion appear in a young woman of strong constitution, these local remedies will only increase the evil. In this case we must have recourse to warm-baths frequently repeated, to a vegetable diet, less nutrient than that ordinarily used; to moderate exercise, and, finally, in many cases to one or two small bleedings at the arm, of from three to six ounces.

Masturbation is a cause which frequently deranges and opposes the establishment of menstruation. Besides the mechanical means usually employed, we must, in these cases, endeavour to calm the moral condition of the patient, by removing every cause of excitation, and to appease any existing excitement by narcotics chiefly administered by the rectum. Whatever be the means of treatment which we propose to adopt, it is essential not to bring them into activity before the presumed period of the menses, or twenty-four hours before it. In the intervals we should content ourselves with general palliatives.

The choice of local agents is far from being indifferent; nothing is more capricious, more *bizarre*, if we may use the expression, than the function of menstruation. In some females foot-baths will bring them on; in others it is arrested by the same means; the application of a *chauffoir*, journeys on horseback, or in a carriage, and a variety of other circumstances, enjoy, by turns, opposite properties, according to the individual. The temperament and constitution of the female seem to have no influence in this respect; each female has a special idiosyncrasy for this function, which we must watch and respect carefully in those who have already menstruated, and which requires the greatest caution in the choice of remedies where experience has not yet revealed its exact nature.

3. *Painful Menstruation.* — The menses when established are not always free from accidents. In many women the periodic return of menstruation is marked by intolerable pain, which appears a few hours before the discharge comes on, and continues a few hours after it has ceased, remaining either during the whole time

of the discharge, or some days later. In most cases the painful menstruation is an hereditary disease, and if the women who suffer from it are questioned, we shall find that several individuals of their family have suffered in the same manner, and are, perhaps, dead from some uterine disease.

This circumstance then requires a serious attention. We can readily conceive how a uterus, which has been exposed monthly to similar congestions for a period of twenty or thirty years, is more exposed than any other to consecutive alterations; this is a fact which I have had occasion to notice very frequently. When the state of the parts is examined in the interval of the menses by the touch, we find the neck, and more frequently the body, of the uterus, gorged with blood, increased in size, and in a sub-inflammatory condition. When the disease has once arrived at this point, the engorgement must, above all other things, be combated by the means which will presently be pointed out; but if we find the uterus in a healthy condition, the female must not be abandoned to her sufferings, as many practitioners advise, who see only in this state the natural effect of a peculiar constitution. Without doubt it is difficult to attain a perfect cure, but we can always at least alleviate the pain. Here the constitution of the female should be the object of our peculiar study, not as an empty speculation, but to throw some light on the treatment which should be employed to modify it. In most cases these pains are merely nervous; the abdomen of the woman seems to be lifted up by something inside; she feels violent contractions and sexual desire, but connexion, far from being agreeable, only irritates the nerves. When an injection is thrown into the vagina, it is immediately rejected; the pulse is small, hard, vibrating; there is subsultus tendinum, and the least emotion throws the body into a state of agitation.

In cases of this kind we endeavour to calm this excited state by narcotics, and chiefly laudanum, administered in small clysters two or three days before the period of the menses; but here we must continue to act, during the intervals, from one period to another. If the woman is simply nervous, warm injections by the rectum, cold-baths, narcotics, frequently are of great service, but in other cases they are injurious. In this respect we must study with care the idiosyncrasy of each patient. For lymphatic women, whose flesh is soft and flaccid, we prescribe bitter tonics, cold-baths, a nourishing diet, some narcotics, and, even in the midst of the menses, a very small bleeding. For plethoric women, who generally lose little blood, we recommend, in preference, warm baths long continued; a vegetable diet reduced gradually to three-quarters, or even two-thirds, of the usual quantity taken; very moderate exercise; emollient drinks in abundance. Coffee and strong liquors are to be prohibited; and, finally, twenty-four or forty-eight hours after the discharge has ceased, we practise a revulsive

bleeding of four or five ounces, which must be repeated, if necessary, fifteen days afterwards.

When once the menses have appeared, we have nothing to do but favour their discharge. But it may so happen that the fluid, after a few hours, or a day's discharge, is suddenly arrested, though, on former occasions, the period of menstruation was much longer; here, if the uterus be sound, we must endeavour to bring them back in the first twenty-four or forty-eight hours after their disappearance; but when the secretory organ is diseased, the case is different; should we attempt to re-establish the discharge under such circumstances, nineteen times out of twenty our attempts will only serve to aggravate the pain. Hence I have laid this down as a rule, to give free latitude to nature in cases of this kind. I confine my practice to the employment of a revulsive bleeding of the arm next morning, which is repeated after fifteen days, with the use of emollient or tonic draughts.

Sometimes the primary affection of the uterus does not cause the sudden interruption of the menses, but merely diminishes their quantity: ought we here to favour a further discharge? In many cases I have done so with success; in others I have increased the uterine congestion, in useless efforts at attempting to increase the quantity of fluid secreted. If on any occasion they stop completely, we have good reasons for not endeavouring to bring them on again. On the one hand the measures employed will, in all probability, be useless; on the other, we have to fear that they may be positively injurious, by increasing the sanguineous congestion.

Finally, the menses may be excessive in quantity. It has been already remarked that fat women commonly lose a very small quantity of blood; on the contrary, abundant menstruation is common amongst lean women. In some of these the loss of blood is excessive during the first two days; it rushes, as it were, in a stream from the vagina; the woman is compelled to remain in bed, and continues for a long time afterwards extremely feeble; frequent baths, if the woman is robust, with a light vegetable diet, will aid in moderating these excessive evacuations; but when she is weak and nervous, we must have recourse to narcotics and a generous nutrition; in either case we should not omit small revulsive bleedings of the arm, practised a few days after each menstruation, and repeated in the intervals, should they appear necessary.

4. *Cessation of the Menses.* — The mean term of the cessation of the menses is fixed between forty and fifty years of age; however, these numbers do not exactly represent the two extremes. I have often seen the menses cease at the age of thirty-five. I may also quote the case of a woman now forty-two, who has ceased to have any discharge for fourteen years, and I give you as an opposite example, the history of three women whom I attended, and who still menstruate, though one is fifty-four, another fifty-

six, and the third is sixty-four years of age. They are of an ordinary temperament, and enjoy perfect health.

With regard to many women, the cessation of the menses is announced several months or years beforehand by derangement of the function; the discharge is sometimes too abundant, sometimes scanty, or comes on irregularly. By degrees the uterus modifies itself, and, finally, gives no longer exit to any fluid; but for some time after this the blood continues to be determined, each month, to the organ, and this becomes a powerful cause of congestion. However, we are not to believe with most writers on the subject, that affections of the uterus are more common at this period than at any other. The great law of physiology, that the more an organ is exercised, the more liable it is to affections, here holds good as elsewhere. From twenty to thirty-five years of age, the reproductive organs are most exercised, and observation shows that diseases are more common between those two periods. There are a great number of women affected with diseases of the uterus in the hospital of *La Pitie*, and amongst those so attacked I do not remark more than three who have reached the age of forty. However true this may be, the critical age, as it has been called, gives rise, in certain females, to inconveniences arising from congestion of the uterus. In many, the venereal orgasm is felt for the first time with violence, and here, nineteen times out of twenty, it should be attributed to irritation of the uterus, in the same way as irritation of the bladder or rectum occasions frequent erection in the male. Hence, also, we have pain, wandering heat, various nervous affections, headache, palpitations, whites, and, in many cases, hemorrhage.

These affections are most frequently met with in women who live in cities. In the country, women employed in laborious occupations, get rid of the materials which they no longer lose in menstruation, by exercise and fatiguing work. When accidents of this kind make their appearance, we should endeavour to combat them without delay by the means already pointed out. The well-informed practitioner will not seek to increase a scanty discharge by determining the blood towards the uterus, a sure means of establishing congestion of the organ, but will prefer supplying its place one or two days after the cessation of the discharge, by a small revulsive bleeding. The pains may be combated by baths, narcotic injections, and emollient clysters. Should the woman be a prey to excessive venereal desire, we should remember that this orgasm, though originally produced by the irritation of the uterus, may afterwards react on, and increase its cause; and complete abstinence is to be as carefully avoided as an excessive abuse. Moderate connexion with the male may be prescribed with very great advantage. Finally, if the discharge assume the character of flooding, we must have recourse to the means which will be indicated against this accident.

LECTURE III.

ON UTERINE HEMORRHAGE, OR METRORRHAGIA: LEUCORRHŒA AND HYSTERIA.

Flooding unconnected with pregnancy; its connexion with menstruation; danger of arresting it when of long standing; uterine hemorrhage not an essential disease, but the result of organic change of the womb; specific causes; where it is curable; where the case is dangerous to some other viscus; where it is incurable; on plugging the vagina. — Of leucorrhœa, or the whites; its sources and causes not dropsy of the uterus; venereal character; treatment. Injections into the uterus; hysteria, its connexion with the uterus; treatment.

1. *On Flooding, or Metrorrhagia.* — The species of flooding of which we are about to speak, is that which is connected, as cause or as effect, with affections of the uterus, and totally distinct from the loss of blood which occurs during pregnancy or labour, and which comes more naturally under the province of the accoucheur.

Metrorrhagia may attack females who still menstruate, or those who have ceased to lose any blood periodically; the latter case is very common. Thus five, ten, fifteen years after the critical age, women are seized with a sudden hemorrhage from the uterus, and imagine that their menses have returned. We should avoid confounding abundant menstruation with flooding. The latter never has that periodic regularity which characterises the menses. Thus hemorrhage may appear, and last for fifteen days, more or less; then may disappear spontaneously, and either return at some undefined period, or never. Sometimes, however, it is connected with the appearance of the menses; but still presents characters sufficiently distinct to be recognised. Sometimes the menses appear first, stop after one or two days, and the flooding comes on next morning, continues for ten days, and then ceases for twenty-four hours to commence afresh. At other times the flooding is first noticed, ceases a little before the commencement of the menses, and permits them to run their usual course.

When these floodings are very copious, and have lasted for several years, they become as it were constitutional, and it would be imprudent were we to suppress them suddenly. We would have to apprehend the occurrence of some severe affection of another organ, particularly of the lungs, which sympathise so intimately with the genital organs.

The attention of the practitioner should be particularly directed to this point after the cure of ancient metrorrhagia. As soon as any unfavourable symptom shows itself, he should hasten to relieve the sanguineous system by the abstraction of blood, and apply a seton to the inside of one thigh, or even to both, if the symptoms be intense, in order to set up an irritation in opposition to that which exists within the pelvis.

A young woman, twenty-eight years of age, who never had any children, was affected for twelve years with flooding, which came on regularly before the menses. The first time I attempted to arrest this flooding, she was attacked with peritonitis; on the second attempt, in spite of preparatory bleedings, she was seized with pneumonia; after a third, with meningitis: all these inflammations yielded, as by enchantment, to the application of leeches on the vulva.

A woman, living in the Rue St. Martin, suffered for eight years from a similar flooding, brought on by an engorgement of the uterus. A revulsive bleeding of the arm arrested the hemorrhage, but headache and various other affections immediately supervened, and did not give way before the re-establishment of the accustomed discharge.

A young female of the Rue Gaillan, affected with pulmonary tubercles, experienced from time to time very abundant flooding. I was very cautious not to suppress it completely; I simply moderated the quantity of the discharge, and as soon as any increase of pulmonary symptoms occurred, I endeavoured to encourage the determination of blood to the uterus. By this simple but rational treatment the life of the young patient was prolonged for three years, during which time the phthisis seemed to remain stationary; but she went into the country, and her new physician immediately applied himself to suppress the loss of blood, to which he attributed the feeble health of the patient; in a few months she was dead.

Is uterine hemorrhage an essential disease, as many physicians still think? For a long time I have taught that metrorrhagia is to the uterus what hemoptysis is to the lungs; and as this latter symptom rarely occurs without organic alteration of the pulmonary tissue, uterine flooding of a certain standing indicates nearly constantly organic change of the womb. It is not meant to lay this down as an absolute rule, for where have we such in medicine? but amongst the immense number of cases which I have occasion to examine, I have not as yet met with a single exception.

The causes of uterine flooding are various. Sometimes they depend on the presence of a polypus; we will speak of this presently; sometimes on a slight or severe inflammation of the neck or body of the uterus, or on the slight erosions of the parts which escape discovery by the touch, and can only be well distinguished with the aid of the speculum, on an inflammation of the vagina; or, finally, on any cause of irritation which exists in the pelvis and attracts the blood towards the viscera of that cavity. We can readily enough repress for the moment a uterine flooding, but to get rid of the complaint radically, we must direct our attention and means of cure against the original cause which gives rise to it.

We thus see, on the foregoing principles, that the practitioner may have occasion to treat three distinct kinds of cases, which will require a suitable and modified treatment; either the chief affection is curable, and the discharge may be stopped without any

danger; or the flooding is connected with some severe affection of another viscus, which its suppression would inevitably aggravate; or, finally, it depends on some incurable affection of the uterus itself. Let us examine successively these three cases.

1st. Although the female may not present any visceral alteration, we have seen that the sudden suppression of a metrorrhagia may induce many inconveniences; we should, therefore, be extremely careful to prepare the economy for the change, though the flooding be of short date. Thus, it will be right to commence by taking one or two palettes of blood, or even more, from the arm. Basquillon never omitted this practice, even when the pale lips and small pulse of the patient indicated an exsanguine condition. It is not rare to see the strength increase, instead of diminish, under the influence of this simple means. The woman must at the same time remain perfectly quiet, and she should drink some mild decoction, or syrup. The next morning, if the patient have a little strength, we may renew the bleeding, after which we pass to the employment of local means, such as cold, or astringent applications; the pelvis should be elevated, and, finally, if the hemorrhage be severe, we must have recourse to plugging the vagina, one of the most certain means we possess.

The discharge of blood once arrested, we apply our attention to the disease which gave rise to it, and the cure of the latter will, with all certainty, prevent the recurrence of the former. The principles of treatment are the same when the flooding is ancient, and is, as it were, domiciliated in the constitution; but, in that case, the preparatory measures should be employed for a longer time and at larger intervals, in order to accustom the constitution gradually to sustain the suppression of a discharge to which it has been so long habituated. We must act for entire months on the economy, and employ all our hygienic resources; a regimen sometimes tonic and substantial, sometimes vegetable and scanty, according to the state of the patient; emollient or astringent draughts, and especially, from time to time, small revulsive bleedings. By means of these general remedies the flooding will gradually diminish, at first in intensity, soon after in frequency of occurrence, and we shall quickly be able to suppress it completely without danger.

2d. If any visceral affection exist at the same time as the uterine discharge, the duty of the physician is easily traced, and consists in moderating its abundance by the general means already indicated, but abstaining scrupulously from any local applications which may suppress it altogether.

3d. The last case is that, where the flooding is connected with some incurable disease of the uterus. Here the discharge, provided it be not too abundant, is, in most cases, a benefit to the patient, and diminishes the uterine engorgement, and alleviates the severe pain; on the contrary, when suppressed either by art, or spontaneously, the pains return at once, all the symptoms are aggravated, and the disorganization, which was before slow, marches with a

frightful rapidity. In these cases we should evidently respect the discharge, but in more rare instances the hemorrhage causes new pain, a proof that it depends on a fresh engorgement, which should be treated by general remedies, and chiefly by revulsive bleeding. At present we have only spoken of bleeding, the quantity of which, though sometimes considerable, is never sufficient to threaten the life of the patient immediately ; but if the hemorrhage come on in a violent manner, every after consideration must yield to the urgency of the present danger. Besides revulsive bleeding, we should, in such cases, employ the most prompt local means, cold astringent injections, or have recourse to the plug without delay.

It is unnecessary to point out here the common method of plugging the vagina, but it may be useful to note a few principles applicable to this subject. If the cavity of the vagina be quite free, it is sufficient to plug it simply to the depth of an inch ; if the vagina be filled with morbid excrescences, we must place a flat compress on the vulva, and maintain it in position with the hand, or with a bandage. The object of these precautions is not to irritate, by the contact of the apparatus, the altered tissues, or the neck of the uterus, which, as we know, acquires a great degree of sensibility when in a diseased state ; we are also familiar with the influence of foreign bodies in contact with the uterus, in the production of metrorrhagia. The clot which soon forms between the compress and the os uteri, will soon act as the least irritating plug. After an hour or two, it is necessary to remove the apparatus and the clot, in cases where the discharge of blood should be moderated, but not suddenly and completely suppressed.

2. *Of Leucorrhœa, or the Whites.* — Leucorrhœa, as well as bloody discharges from the uterus, has not often been considered as an essential disease. Without doubt it may arise, in the first instance, from the vagina alone, and extend thence to the uterus, constituting the vagino-uterine catarrh ; but after an uncertain period, and sometimes very shortly, the uterus becomes engorged, and the catarrh, which was at first the principal affection, no longer constitutes anything but a secondary symptom. In many cases, also, the disease pursues an inverse course of that we have mentioned, and commences by engorgement of the body of the uterus. The discharge, which arises at first from the mucous membrane of the vagina, does not always come from the same morbid condition of parts ; at an early stage we find a simple injection of the membrane, with more or less swelling. At a later period we have infiltration, induration, and ulcers of the vagina, or neck of the uterus, (a fact which has, in latter days, been published as new, but which was made known, twenty years back, by Viguerie,) and, finally, vegetations.

From this enumeration it is mamifest how necessary it is to explore attentively the vagina, neck, and body of the uterus in cases of whites, and to regulate by such examination the essential modifications which the treatment must undergo. We shall not repeat

here, on the causes of leucorrhœa, what may be found in all books upon the subject. I would enumerate especially the use of warming-pans, and of *coffé*, which brings on this discharge immediately in some women. It is well known that a white discharge frequently comes on in moderate quantity the second or third day after the menses; but I have witnessed a fact much more singular and almost unique, in a woman affected with engorgement of the uterus. Five, ten, fifteen, or twenty, days after menstruation, some premonitory symptoms come on as if the discharge was about to return, and immediately after a white serous discharge takes place in such abundance, that the woman is compelled to wear cloths, and so acrid, that it irritates excessively the great labia and the skin of the thighs, causing there very smarting pains. In about two days these symptoms disappear.

Is this what was formerly termed dropsy of the uterus? I have, at different times, explored the uterus by the vagina, rectum, and hypogastrium, with the minutest attention, and have never found the volume of the organ increased, if we except the engorgement. In order to be more certain on the point, whether any liquid was collected within the uterine cavity, I have passed up, through the os uteri, the extremity of a gum-elastic tube, without finding anything. Hence the serous discharge in this case is produced by a sudden exhalation from the internal surface of the uterus. Are white discharges contagious or not contagious? Are they, or are they not, venereal? These are questions which are very difficult to be resolved, and upon which practitioners are still divided. I think that a white discharge may communicate the venereal disease, especially when the former is connected with small ulcerations of the vagina or urethra — a case more common than is usually thought, but which may be ascertained by examining with a glass those parts, the slight erosions of which easily escape the naked eye.

We may now pass to the details of the treatment. When the discharge is recent, and arises from an acute inflammation of the mucous membrane, we must employ, above all remedies, antiphlogistic means; with this view we prescribe emollient drinks and vegetable diet, and take blood in more or less quantity from the arm, paying some attention to the abundance of the menses. I do not approve of the application of leeches to the pelvis in acute diseases, except when complicated with peritonitis. To these means we may join emollient, nearly cold, injections into the vagina, keeping the pelvis slightly elevated, that the injection may be retained and form a kind of local bath. When the inflammatory symptoms are calmed, we have recourse to revulsives, as copaiva or cubebs, which generally complete the cure in a few days. When the discharge is chronic, revulsives are equally indicated to stop it, unless depending on some alteration of the tissue. If the mucous membrane of the vagina be hardened, we must employ friction of mercurial ointment, and the hydriodate of potass to the upper and inner part of the thighs; or, if the woman can

support it, we may place a rag smeared with mercurial ointment in the vagina; and, finally, we may employ injections of various natures.

For a great length of time, surgeons were afraid to throw injections into the cavity of the uterus when affected with catarrh, though Hippocrates had advised the practice, which was, moreever, revived at the end of the last century by Viguerie. It is a simple operation when performed with proper precaution. We first inject simply fresh water, we then employ decoctions or astringent injections, or styptics, the strength of which should be gradually increased by the addition of a few drops of concentrated acid. A gum-elastic tube, introduced with circumspection, serves as a means for conducting the injected fluid, and we are thus enabled to cure white discharges, which obstinately resist every other method. Sometimes the injections stop the discharge suddenly, as in the male; or they act more slowly, in general requiring twenty or twenty-five days. On other occasions they convert the chronic inflammation into an acute one; hence the treatment must be modified to the case, and usually twenty-five to thirty days are sufficient for a perfect cure. Should the discharge be kept up by chronic ulcerations, vegetations, or engorgement of the uterus, we can only hope to remove the effect radically by acting on the cause which produces it. However, there are two cases in which we should proceed with more reserve.

When these discharges are very ancient, they become habitual, and necessary to the economy; it is frequently impossible to supply their place, and imprudent to attempt it, more especially if the woman be old, feeble, or have any tendency to scrofula. In other cases it is necessary to set up beforehand some artificial discharge, which may supply that we intend to arrest. Intermittent discharges also require, with respect to their suppression, the same precaution as uterine flooding. We shall not repeat what has been already said on the latter subject. In all cases, in studying carefully the constitution of the female, if we find they have succeeded to the suppression of some evacuation, to the retrocession of an exanthema, we may effect a cure without inconvenience, by substituting some artificial exutory.

Of Hysteria. — According to many physicians, hysteria being always a nervous disorder, can never be studied in a surgical point of view; but experience does not support this too exclusive opinion, and if the disease be sometimes nervous, more frequently it depends on some irritation or slight inflammation of the uterus. Being frequently called to visit hysterical women, I have practised the toucher in this disease, and the uterus has almost always appeared to enjoy an excess of sensibility, and to be in a state of turgescence and hypertrophy. The neck had the form and size which it presents in the second month of pregnancy. In some cases, where the inspection of the body was offered, the slight inflammation of the uterus already noticed, was equally seen. Hence

I generally prefer the antiphlogistic treatment; after revulsive bleeding of the arm I prescribe baths, emollient injections, and narcotics, administered by the anus, and, when all these means fail, flying cauterization of the abdomen. When we were besieged in Metz in 1813, a young girl was attacked with fits of hysteria, which resisted every means employed against them, but they yielded completely to the cauterization. We also know that hysteria succeeds sometimes to the abuse, sometimes to the privation of sexual intercourse. These causes merit peculiar attention; but a capital rule of conduct is to pursue the treatment with perseverance for a month or more if necessary; and if the disease appear at first obstinate, be equally obstinate yourself: success is frequently attained by these means only.

LECTURE IV.

GENERAL REMARKS ON THE SYMPTOMS AND TREATMENT OF DISEASES OF THE UTERUS.

Seeming health during incurable disease of the uterus; cautions on this account; precursory symptoms; palpable disease — death. — Series of general remedies applicable to uterine diseases; viz., baths, repose, injections, lotions to the vulva; cataplasms to the vagina, irrigations, affusions, lavements, narcotics, bloodletting.

We shall divide our remarks on affections of the uterus and their treatment into two parts; one comprehending sub-inflammations, engorgements, and scirrhus uteri; the other embracing the various ulcerations, vegetations, and different tumours of the neck and body, of the uterus. In order to avoid useless repetitions, we shall commence by detailing certain general symptoms and therapeutic means, which are applicable to the greater part of uterine diseases.

It is well known in the practice of medicine, that diseases do not always produce external symptoms proportionate to their degree of severity or danger. This observation is peculiarly applicable to affections of the uterus. We frequently find this organ in a state of disease, which admits no hope of cure, while the general health does not seem to suffer in the least. The complexion is yet fresh and blooming, while the patient presents nothing but a few insignificant symptoms of disorder in the generative organs. Many of the patients now in the ward *Saint-Augustin* afford sad examples of the truth of this remark. On the other hand, we observe women who are affected in a very slight manner, become thin, suffer excessive pain, and gradually waste away.

Hence the necessity of a most careful examination the moment we suspect the existence of any disease in this part of the body. In general we remark the following precursory symptoms : — The woman loses a small quantity of blood from time to time, without any pain, or has a leucorrhœa, which continues during the interval of menstruation. The breasts become slightly tumid, and she thinks this often a sign of good health. She feels some pain in the loins after walking or riding in a rough carriage. When she stands for any length of time, a sense of fatigue in the pelvis and of dragging in the loins compels her to sit down. Coition is often followed by a slight loss of blood, and excites slight pain, which may disappear quickly, or remain for one, two, or even three days. Sometimes the disease is arrested at this point, and ceases spontaneously ; but more frequently the fluor albus becomes more abundant ; the woman experiences pain, not usually in the uterus, but about the loins, the round and broad ligaments, or even a pain running down the back of the thighs and legs to the heels, whence it is often mistaken for a sciatica ; the pain may also extend towards the umbilicus, to the flanks, or very often to the rectum, especially when the neck of the uterus, thrown backward by a slight anteversion of the organ, presses on the intestine. The floodings now succeed each other at shorter intervals ; the breasts dwindle away, and a sympathetic gastro-enteritis declares itself; the patient is affected during the day by a slight fever, recuring at intervals more or less frequent, or by nervous attacks ; the skin is dry; digestion becomes deranged ; the woman loses flesh and complexion, and the whole skin assumes a sickly, dull colour.

The disease seldom arrives at this point without a physician being consulted, and it is now easily discovered ; but at other times, as has been remarked, the disorder, though hidden, increases, while the general health seems perfect, and only reveals itself on a sudden with alarming symptoms ; digestion is interrupted, and the patient is afflicted with excessive pain ; hemorrhage now sets in and recurs frequently ; the skin becomes dry and earthy coloured ; finally, a colliquative diarrhœa makes its appearance, and terminates the scene generally in one or two months after the appearance of the first symptoms. Death may take place even within twenty-four hours from perforation of the uterus and peritonitis.

I have occasion to see every year at least twenty examples of uterine affections which march in this insidious manner. Not long ago I was called to the wife of a musical professor in this city, who was fresh and young, and might pass for one of the handsomest women in Paris. M. Moreau, who had already seen the lady, wished to have my advice ; I touched her, and found that the uterus was reduced to a putrid mass, in which the finger readily sunk. There was no resource left ; it became necessary to acquaint the family with the dangerous state in which

she was, but they could not be persuaded that we were not in error: in a few months afterwards the lady was dead.

SERIES OF GENERAL REMEDIES APPLICABLE IN DISEASES OF THE UTERUS.

Let us suppose that the physician has been called upon in sufficient time to be useful; whatever affection he may discover by aid of the speculum or the toucher, there is a certain series of general remedies applicable to all, the value of which we shall now examine separately. Thus, when the disease is acute, we have baths, repose, injections, clysters, bloodletting, cataplasms, drinks, and regimen. In chronic cases we have blisters, cupping-glasses, douches, excretories, and compression. Of these I shall now speak.

Baths. — The greater number of physicians prescribe emollient hip-baths even in acute affections of the uterus; I reject them in every case, as the greatest absurdity which can be committed in therapeutics. What! do we prescribe a foot-bath in headache in order to draw the blood towards the lower part of the body? and in an affection of the pelvic organs, should we hesitate to attract the blood towards the pelvis? Yet such is evidently the effect produced by hip-baths, as is proved by their influence in bringing on menstruation when arrested. But laying aside theory, let us consult experience. Almost always after a hip-bath the patient complains of greater pain and more weight about the pelvis. Hence I never use it, except when I wish to excite, which is quite a different thing; and I do not hesitate to affirm, that a single hip-bath prescribed according to the common and prevailing views, is sufficient to destroy any good effect which may have been produced by any previous treatment, however well directed. Baths in which the whole body is immersed, either warm, or at a temperature agreeable to the feelings of the patient, are the only ones applicable to uterine disease. Simple water is sufficient; the emollient decoctions and gelatin, which are after added, only increase the expense without presenting any advantage. The woman should remain in the bath two, three, four, five, or even six hours consecutively. If she remain only half an hour or an hour, the bath becomes rather a means of excitement. In fact, if we examine the pulse on entering a bath, and examine it again some time afterwards, we shall almost invariably find it increased in force and frequency. Respiration becomes accelerated with the pulse, the cutaneous exhalation is augmented, the head feels heavy, and a desire to sleep is experienced: prolong the bath, and this state of excitement gives way to one of calm, constituting, if we may so express it, the antiphlogistic period of the bath. It is, therefore, absolutely necessary to prolong the bath for a considerable period, however, to avoid *ennui;* we may order one of three hours' duration for the morning, and another of similar length in the evening. But in some cases the use of a bath, however pro-

longed, irritates the nerves, and some women feel a disposition to faint the moment they enter one. We may pay attention to these peculiarities of constitution, and either diminish the number and duration of the baths, or abstain altogether from their employment.

Repose.—Absolute rest is indispensable. I have often tried every other method, without insisting on repose, but in most cases, especially when walking gave rise to slight pain, all our means were unsuccessful. I treated a woman in the Rue St. Martin during six months; but in spite of all my care the disease increased. She assured me that she observed the strictest repose, and I was at a loss to explain this want of success, when some people in the house informed me, that she walked about her chamber every day, which, according to her view, was not taking exercise. I placed her for two months under the care of two trustworthy persons who prevented her from walking, and the consequence has been, that her health is now infinitely improved. It is not repose in bed of which I now speak; the bed causes warmth, determines congestion to the pelvis. We all know how it excites erection of the penis, which cannot be attributed to fulness of the bladder, as it equally takes place when the bladder is empty. The patient should rest on a couch, lying down and not sitting, and should be carried thither from bed, to avoid the exercise of walking to it. But to this rule there are exceptions: some women cannot digest their food while at rest, in others it increases the nervous symptoms; and in many it causes cessation of the catamenia. Exercise of some kind becomes necessary in these cases, and walking is in general preferable to the motion of a carriage however lightly hung. The period of menstruation should be selected as the time for exercise, as then the pain is generally alleviated or diminished; but should the woman suffer more at this period, as may happen, rest is more than ever absolutely necessary.

Injections.—The nature of injections employed, varies according to that of the disease; they are made of emollient, astringent, detergent substances, or a solution of chloride of lime may be used in cases of fetid cancer. The liquid should not be too hot lest it cause congestion, or too cold for fear of reaction. Fifteen or twenty degrees (Reaumur) is a proper temperature. To throw up the injection I generally prefer a middle-sized syringe, armed with a gum-elastic canula, about the size of the little finger, and previously oiled. In order to obtain the greatest possible advantage from injections, the vagina should first be cleaned out with a common injection; the woman should then be placed in a supine position, with the pelvis somewhat raised, so as to form an angle of 35 or 30 degrees with the horizon; by this means the vagina represents an inclined plane, the lowest point of which touches the neck of the uterus. The canula should be introduced into the vagina to the depth of an inch or eighteen lines, or even less in cases of prolapsus, to avoid striking the end of the instrument

against the neck of the uterus, and the handle of the syringe pushed forward with extreme slowness. The vagina usually contains five or six spoonfuls of liquid, which accumulates round the neck of the uterus, as the most depending point, and there forms a kind of local bath, which may be applied ten minutes for the first time, and afterwards for a quarter of an hour. The injection may be repeated three or four times a day. In some cases the external orifice of the vagina will close round the tube, so as to prevent completely the return of the fluid. Here we should avoid pushing the injection too strongly, lest it increase still further the reaction of the canal. Injections may also be administered with great advantage while the woman is in a bath, and then the supine posture is not necessary, for the pressure of the water opposes a sufficient obstacle to the escape of the injection. In spite of these precautions, there are some women who suffer a great deal whenever injections are thrown up the vagina; the introduction of the tube is painful, or the vagina contracts on the liquid, and does not keep the slightest quantity. These symptoms are most frequently seen a few days before and after menstruation, but we must still employ the injections, unless contraindicated by the excessive suffering which they may produce. The entrance of the vagina will become accustomed to the tube, but it may be prudent to throw them up less frequently as long as this state of irritability lasts. Some patients complain of injections rendering their condition worse; but the practitioner will do well to assure himself that it is not dislike to the operation which produces these complaints before he determine on discontinuing so useful a remedy.

Lotions to the Vulva. — The vagina may in some cases be filled up with vegetations, which are very irritable, and bleed on the least contact. Here injections should be replaced by the use of lotions to the vulva. The labia majora are to be gently separated, and a sponge steeped in some medicated fluid should be applied to the orifice of the vagina, avoiding every kind of pressure or friction in applying or withdrawing the sponge.

Cataplasms to the Vagina. — We have been recommended to pass into the vagina cataplasms nearly in a liquid state, and I have praised this means myself, trusting too much to the account of those who affirmed they had derived great advantage from its employment; but I have long since renounced cataplasms applied in this way, for the following reasons. In the first place, women have a great dislike to them; besides, injections when retained for ten minutes or more, are just as efficacious. But my chief objection is, that we cannot completely remove the cataplasms from the vagina when its office is done; though I have vainly forbidden their use, for two or three days before the application of the speculum, and the evening before have thrown up numerous injections, there always remained some remnant of the cataplasm, which I was compelled to remove with a forceps. Finally, if a cataplasm applied to the skin ferments in a few hours, what must be the case

in the vagina where the temperature is higher and where various secretions must further give rise to decomposition? An old practice has been recently revived and much praised, which consists in introducing, by the aid of a speculum, a bit of lint, moistened in some medicated fluid, and placing it near the neck of the uterus. I do not presume to contradict the success said to be obtained by this means; it may, perhaps, be applied with advantage to prostitutes, where the genital organs have lost a great part of their sensibility, but in private practice I would never recommend its use. About eight or nine years ago I made some experiment with the lint, and in almost every case it gave rise to so much irritation and pain, that I was very glad to remove it as quickly as possible.

Irrigation. — Irrigations are more active than simple injections, but less so than effusions; we, therefore, employ them whenever the irritation is too great to permit the use of the latter. The effect of an irrigation may be produced by throwing up eight or ten injections quickly, one after the other; but, as the reintroduction of the tube might be painful, it is much better to make use of a large syringe, and inject a large quantity, gently, twice a day.

Affusions. — These are a powerful resolvent, and an energetic stimulant. They should never be employed, except when the disease has passed to the chronic stage, and no pain exists. The effect of affusion would be highly dangerous in cases of inflammation or sub-inflammation. Affusion may be administered at the patient's residence, either with the ingenious apparatus of MM. Charriere and Deleuil, or by placing a large vessel filled with water at some distance above the patient's head, and joining to it a flexible tube. The jet of water will of course be the stronger in proportion to the elevation of the vessel. Affusions are either simple or medicated, irrigatory, or in form of a jet, ascending, descending, or horizontal. They may be directed around the pelvis, or into the vagina, even as far as the os uteri; in the latter case the tube should be introduced with the same care as for injection. Affusions are commonly administered nearly cold, at first irrigatory and directed upward, in order to render the jet more easily supported and less violent. We may commence by a fall of three feet, then four, or six, measuring the force by the effect produced. One a day is sufficient to begin with, after which we may give two, three, or even more. If the woman feels some heat and pain after the affusion, which disappear in five or six minutes, the excitement has been carried to the proper degree, and the remedy may be continued; but should the pain continue for a longer time, it is a proof that the disease is still in an acute stage, and we must have recourse to more mild measures.

Lavements. — These should be administered every now and then, so as to keep the bowels properly free. Constipation is doubly injurious, both as producing a painful pressure on the uterus, and on account of the efforts which the patient is compelled to make whenever she goes to stool. It may be asked, why

would not laxatives, administered by the mouth, fulfil the same object? The reason is this: in affections of the uterus, it is a matter of the greatest importance not to irritate the digestive organs, and experience has convinced me that lavements are in this respect absolutely necessary.

Narcotics. — These are often useful in calming those violent nervous pains which so frequently accompany affections of the uterus. They may be administered by the mouth, or by friction on the perineum, groin, upper part of the thighs, or, still better, by means of a small blister, according to the endermic method; but the most efficacious way of administering them is, incontestably, by the rectum. It might appear, at first sight, more natural to inject them into the vagina; but Cullerier has observed that laudanum applied in injection to painful chancres, produced inflammation of the vagina; and experience has sufficiently proved, that narcotics are apt to give rise to nervous or inflammatory accidents when introduced into the vagina, while their effect on the system is considerably diminished. Laudanum is preferred as an internal remedy; belladonna, in the form of extract, diluted with a small quantity of water, answers for friction, and the salts of morphine to apply after blisters. A great deal has been said on the various effects produced by narcotics, according to their preparations and the constitution of the patient; and on the necessity of varying them, until a proper one has been discovered. Some women cannot support them. I am at present treating a woman in whom a quarter of a grain of belladonna in a lavement produces gaiety and drunkenness analogous to that of Champagne wine, and this lasts during the whole night. But even in those cases we must not give up the remedy; it is only necessary to administer it in a smaller dose; thus we may commence by a half-drop, or drop, of laudanum, in a clyster, and I have often seen patients in private practice quieted by this means. By degrees the constitution becomes accustomed to the remedy; the dose is augmented, and it is not rare to see individuals who had commenced by taking a fraction of a grain of opium, end by supporting one hundred grains in the twenty-four hours.

Bloodletting. — While the disease of the uterus is in an acute or subacute state, most practitioners advise local bleeding by means of leeches placed round the pelvis, and to the upper and inner part of the thighs, or especially to the os uteri, by means of a speculum. This question of local bloodletting is very important, and does not appear to me to be well understood. In most cases, when I am called into town for affections of this kind, I find that leeches have been applied by the physician already in attendance. If we question the patient with care, twenty to one but she has suffered more uneasiness, heat, and weight, about the pelvis, since the leeches were applied. I was called a few days ago to see a female to whom thirty leeches had been applied. Although they had drawn a good deal of blood, they were succeeded by exces-

sive pain, and even by convulsions. A few rare cases of success cannot be allowed to influence us in favour of leeches, the good effects sometimes produced by which are only exceptions to the general rule. Four or five years back, being desirous to throw some light on this question by direct experiment, I made numerous trials of local and general bloodletting in this hospital. Ten women were treated by abstraction of blood from the arm, ten others by the application of leeches to the vagina; the former were invariably more improved than the latter, who seemed to suffer rather than to be benefited by the local bleeding. These experiments were repcated on a great number of patients, and my conviction on the matter is complete. Besides, the result accords well with theory. It is not a principle of the physiological school, that leeches are proper for membranous inflammations, and general bleeding for parenchymatous ones? Local bleeding, however copious, determines new congestions towards parenchymatous organs. In the case of several females affected with scirrhous tumours of the breast, M. Costen has seen the application of leeches produce pulmonary congestion, with palpitation of the heart similar to that of aneurism; these symptoms were removed by a bleeding from the foot. M. Margat has observed cerebral congestion brought on by the application of leeches to white swellings of the superior extremities, which were equally dissipated by a bleeding from the feet, a proof that the accident depended on sanguineous congestion, and not on simple nervous irritation. Similar facts have been observed in this hospital, and the womb, more than any other viscus, already accustomed to periodic congestions, is subject to become engorged on the least irritation. But it may be asked, have leeches, applied about the pelvis, really this effect? Every practitioner knows, that the best means of bringing on menstruation, is to apply frequently a small number of leeches to the vagina, and not to permit the orifices to bleed. Hence, if we hope to produce any antiphlogistic effect by leeches, they must be applied in very great numbers, and should be preceded by at least one general bleeding; however, if they be applied near the pelvis, there will always remain more or less congestion of the uterus. But, say they, the leeches may be applied to the neck of the uterus; yet this is a point where their number cannot be increased according to the will, and should we succeed in applying twenty, which is a great deal, the blood drawn away will not be sufficient to dissipate the afflux of fluids towards the organ. For my part I reject the use of leeches in every case of uterine affection, whether acute or subacute. The only circumstances which induce me to depart from this rule are — 1st. When a peritonitis co-exists with the inflammation of the womb, because leeches are positively indicated when inflammation attacks a membranous tissue; 2d. When the inflammation has passed to a chronic state; but here we prescribe them, not as an antiphlogistic, but to excite and resolve. Yet, even here, there may be an exception: for, whenever the neck of the uterus seems to be affected

with scirrhus, we avoid applying leeches, at least immediately, to it; experience having too often taught us that the bites are easily changed into as many cancerous ulcerations; the same phenomenon is observed when the skin adheres to a scirrhous breast, and when leeches are applied to it. The ancients had therefore just grounds for preferring bleeding from the arm in cases of uterine irritation. It disgorges the uterine vessels, with the same facility that it puts a stop to floodings, while local bleeding, on the contrary, augments them. This fact is so well known, that physicians who do not hesitate to prescribe leeches with so much confidence for simple uterine congestion, do not dare to apply them when such congestion is accompanied by hemorrhage, for fear of increasing it, which proves how little their reasoning is supported by general facts. For my part I confine my practice to bleeding from the arm, avoiding to take away blood seven or eight days before the menstrual period, lest it may interfere with that function; but after the cessation of the discharge, if any pain remain, or any weight about the pelvis, indicating a persistence of uterine congestion, a revulsive bleeding practised twenty-three hours after the stoppage of the catamenia, often dissipates the pain like a charm, particularly if we employ with it an anodyne lavement. Should the pain precede menstruation, instead of coming on after it, we must wait until the middle of the month. When it is altogether independent of menstruation, appearing during the intervals of the discharge, bloodletting may be repeated two or three times during the month. The state of weakness depending in most cases on the pain which deprives the patient of sleep and appetite, far from being a contra-indication, requires more essentially the remedy of which we speak. There are, however, certain peculiarities of constitution which compel us to modify these principles. Thus, in treating, in a former lecture, of the means proper to bring on menstruation, we noticed that when a woman is strong, venesection will induce the catamenia almost at once; in other cases a revulsive bleeding brings on flooding. I have lately seen an example of the latter, produced by an abstraction of four ounces of blood. These are undoubtedly rare exceptions, but we should not lose sight of them. In such cases, general, and, *a fortiori*, local bleeding should be avoided. Some females, essentially nervous, cannot support bleeding, without suffering various unpleasant nervous accidents. Here the quantity of blood taken away may be diminished to a very few ounces, and this precaution sometimes succeeds; but should the same accident occur, we must give up the idea of bleeding altogether. If we except these cases, venesection, aided by narcotics, is the surest means of calming and removing the pain. This idea is not new. Stahl had long ago remarked, that in cases of cancer, the patient experienced a marked amelioration whenever the veins gave way. You have often seen me, Gentlemen, prescribe bleeding to twenty women at the same time, in this hospital; fifteen of them, at least, are benefited; the pains disappear for a longer or

shorter period, unless some foreign influence, as a moral affection, or a change of atmosphere, interrupt the action of the remedy. In this very ward we have supported a woman for ten years who was affected with a very dangerous uterine disease, not so much by employing narcotics as by repeated small bleedings, varying from two to six ounces, according to the strength of the patient. When the disorganization of the uterus is very far advanced, and accompanied by the discharge of cancerous matter, the quantity of blood drawn should be very small, in order to avoid the danger of facilitating its absorption. If the patient be very feeble, if we remark any symptoms of indifference, a tendency to sleep, or stupidity, in a word, if adynamia exists, we must avoid employing venesection altogether, as a means which can only hasten the fate of the patient.

LECTURE V.

TREATMENT OF DISEASES OF THE UTERUS (*Continued*). — SUB-INFLAMMATION, HYPERTROPHY, SIMPLE WHITE ENGORGEMENT AND HYPERTROPHY OF THE UTERUS.

Cupping, pessaries, and medicated drinks. — Sub-inflammation without enlargement, simple hypertrophy, prolapsus, and occult cancer of the uterus; simple white engorgement and scirrhous tumour. — Is scirrhus curable.

Employment of Cupping-Glasses, Blisters, &c. — The observations which have been made upon local bleeding apply equally to these means of cure; when employed in the acute stage, they are more likely to favour congestion than to bring relief: all similar remedies are subject to the same objection and should never be applied except in the chronic stage, either to dissipate a simple congestion, unaccompanied with pain, or to excite the vital properties of the indurated tissue. For this latter purpose a seton may be drawn through the abdominal parietes, a little inside the anterior-superior spine of the ileum, or a moxa or cautery applied to the lateral and inferior parts of the spinal column: but in some nervous women the general irritation which they produce counterbalances the advantages otherwise resulting from them.

Compression — Is an advantageous means, but difficult to manage, and requires a perfect appreciation of its indications. A pessary, *en bilboquet*, into which the neck of the uterus descends, and becomes compressed, has been recommended for chronic engorgement of the uterus. But we should be well convinced that there exists no irritation of the vagina, bladder, or uterus, which would be aggravated by the presence of the foreign body. We may lay it down as a general rule, that when any pain exists,

compression should be avoided; or if the pessary when applied excites fever and pain, it should be removed at once.

Medicated Drinks, &c. — In the acute stage of uterine affections, we prescribe emollient drinks in abundance: during the chronic stage, decoctions of soap-wort, dock, or scabiosa vulgaris, or the expressed juices of these plants, may be used if the digestive organs will bear them. We may also have recourse to iodine in these cases with advantage, to cicuta and other similar preparations; but we should watch over the state of the digestive organs with the greatest care, for frequently there exists, with the disease of the uterus, a gastro-enterite, sometimes latent, or sometimes so pronounced that it diverts the attention of the physician from the principal malady. In these cases resolvents are dangerous remedies. How often have patients labouring under incurable disease, but who might have lived for a long time in tranquillity, fallen victims to active preparations administered by empirics! I have so great a dread of this complication with gastro-enterite, that I do not dare to administer laxatives by the mouth. There is less danger in employing discutient frictions with the hydriodate of potash, mercurial ointment, &c.; but we should always wait for the chronic period, lest the inflammation may be increased. Finally, a word on cicuta. It is employed as a narcotic and discutient, and the extract generally is preferred. But there is no remedy so impure: most apothecaries, in preparing these extracts, carbonize the material and render it useless; I therefore prefer the powder, giving at first a grain, then two after fifteen days, and gradually augmenting the dose to four or five grains. Sometimes it occasions a little pain in the throat and some diarrhœa; on the appearance of these symptoms, it should be suspended at once, and all our care directed to prevent gastro-enterite from being developed.

OF SUB-INFLAMMATION, WITHOUT ENLARGEMENT, OF THE UTERUS.

We are frequently called upon to attend females who experience smart pain in the uterus; standing erect, the least exercise on foot, or in a carriage, fatigues them excessively; coition is always excessively painful; they feel a sensation of smarting, burning pain in the pelvis, as if the womb were on fire; the abdomen is tumid, and there is weight about the flanks and iliac regions. The excretion of feces often causes pain, on account of the efforts it occasions. The woman feels as if she had some foreign body which wanted to escape; however, there is no procidentia, or deviation of the uterus; menstruation is regular, and there is no other discharge; the pain is sometimes remittent, but most often intermittent; if we "touch" the woman in this state, we find the os uteri a little more dilated than is natural, but the volume and consistence of the uterus are not changed. The speculum does not discover any ulceration of the neck, but its introduction, or even that of the

finger, causes pain. This affection is often regarded as depending on the peculiar constitution of the female, and is purely nervous; some palliatives perhaps are prescribed, and the disease goes on increasing. But supposing it to be a simple nervous affection, does it the less require treatment? Do we not often see a sanguineous congestion determined in other organs by neuralgic pains? I am inclined to consider this state as a sub-inflammation of the uterus without engorgement, and do not lose an instant in applying the antiphlogistic and narcotic remedies of which I have already spoken.

HYPERTROPHY OF THE UTERUS.

Simple hypertrophy of the uterus gives rise to certain general symptoms which we have already passed in review; but we require other data, which are chiefly furnished by the toucher, to recognise it. Thus, on touching the female, we feel an unnatural degree of heat in the internal surface of the vagina, and at the neck of the uterus, which is always very sensitive, much more so than when in a state of scirrhus, and it gives to the finger the same sensation as when it contains an embryo of four or six weeks. In fact, pregnancy, attracting towards the organ a quantity of the fluids, gives rise to a physiological hypertrophy, which serves as a guide to discover the morbid one.

If we would give by comparison the idea of the sensation which the finger acquires under these circumstances, we should say it resembles that produced by a lipoma, by the mamma of a young female who has died suddenly, or finally, the sensation given by a body compressible, though resisting and elastic, with something of a spongy feel. The engorgement may exist in the neck and body of the uterus at the same time, or in one of these parts separately, but never isolated, so as to present knots like scirrhus. In all cases the weight of the organ is more or less augmented. Here a very important question presents itself for discussion; the augmented weight of the uterus drags and fatigues the broad ligaments which have lost their elasticity, and are disposed to yield to the weight of the organ.

Hence it follows, that every engorgement, whatever be its nature, is always accompanied by a more or less marked prolapsus of the uterus; and as the latter is the consequence of the former, our remedies should be directed against the engorgement. I can assure you, from experience, that in a vast majority of cases, by so doing, you will restore the uterus to its natural position. I insist the more particularly on this point, and direct your attention to it, because a contrary practice is almost universally followed, and the procidentia alone attended to, being attributed to a weakness or relaxation of the broad ligament. I do not mean to deny that prolapsus may not exist without engorgement, but the case must

be extremely rare, for in the great number of diseased affections of the uterus which have fallen under my care, I have not yet met with a single example. Besides, the uterus, even when healthy, is easily displaced during any considerable effort. Thus, when the speculum is fixed and supported by the finger, if we desire the woman to make an effort, the instrument is expelled with force, and the neck of the uterus descends sometimes within an inch of the external orifice. On this account we should be careful in cases of engorgement, to recommend the woman not to make any effort when she goes to stool, and to employ lavements constantly, lest the procidentia determined at the time may persist.

We are not to confound simple hypertrophy of the uterus with a condition which is far different. This is an extreme softening of the tissue of the organ, which gives way under the pressure of the finger, like a rotten apple ; it is no longer firm, elastic, and spongy, but feels like a pultaceous substance, or almost like a fluid, and the tissue is reduced to a brown-red decomposed jelly.

This state of the uterus, which has been called occult cancer, is sometimes accompanied by a superficial ulceration, and sometimes exists singly. The diagnosis is here of the greatest importance, for simple hypertrophy does not require an operation, while occult cancer, rapid in its march and mortal, leaves no other choice than the complete removal of the diseased parts. To the differences already pointed out between these two affections, the following may be added : — Hypertrophy is commonly of recent date ; cancer is an older disease. Hypertrophy occupies the neck and frequently the whole body of the uterus, while cancer remains for a long time limited to a portion of the organ. We insist the more on this point of the pathology of the uterus, regarding it entirely new, as the facts by which it is supported have been frequently observed in this amphitheatre, where we have placed before the eyes and in the hands of the class, the anatomical preparations, after amputation of the neck of the uterus for cancer.

Simple hypertrophy is either accompanied by pain or not, hence two indications. In the first case we have recourse to antiphlogistics, absolute rest, emollient lavements almost cold, injections of the same temperature, entire baths, bleeding from the arm, &c., and, above all, perfect repose of the diseased organs. The diet may consist of milk, vegetables, white meats, and fish, always paying regard to the habits and temperament of the patient. This is a simple mode of treatment, but it should be persevered in scrupulously. Affections of the uterus require a longer time to cure than those of any other organ ; in the first place, we dare not act during the seven or eight days which precede the menses, nor during the discharge ; and in the second, this congestion, though merely physiological, by returning periodically every month, cannot fail to influence in a dangerous manner the permanent morbid congestion. Both patient and surgeon must, therefore, be armed with patience. The time necessary to complete the cure may vary from one to three

months, but we should here observe, that the progress of the cure should not be measured by the extent of the pain, for we have often seen the latter increase as the engorgement diminished.

When the hypertrophy exists without pain, but with a little uneasiness and weight in the pelvis, the disease is in a chronic state. Here again we employ general bleeding, cold baths, if the woman can bear them, simple affusions, or medicated ones. In these cases twelve or fifteen leeches, applied to the neck of the uterus, are useful to hasten resolution, and then we may prescribe with advantage moderate exercise, cupping-glasses, affusions on the pelvis, &c. If we suspect the existence of some excoriations, the speculum may be employed without fear; in a word, the treatment, which is antiphlogistic in the acute stage, becomes excitant and revulsive in the chronic: the only thing we have to take care of is, that the excitation do not pass just bounds so as to bring back the acute stage and necessitate the employment of fresh antiphlogistic measures.

OF THE SIMPLE WHITE ENGORGEMENT, AND OF SCIRRHOUS TUMOUR.

We unite these two diseases under the same head, because the treatment is the same, and the difference of diagnosis affects only our prognosis of the disease. In both cases, the finger introduced into the vagina recognises an increase of volume in the uterus, either in totality, in the neck, or in the body only. The size may be enormously increased; pain may be absent in both cases, or show itself equally lancinating, so that the differential characters are confined to the following:—

1st. Simple engorgement is less hard, and presents an uniform surface to the finger, while a scirrhous tumour is irregular and rough.

2d. In scirrhus, the mucous membrane covering the neck of the uterus is of a dull-white colour, which I have never observed in simple engorgement.

3d. Scirrhus developes itself more slowly: thus, when an engorgement is only of one or two months' date, especially if it have succeeded to an abortion, to a sudden suppression of the menses, &c., we are sure it is not of a scirrhous nature.

4th. Finally, simple engorgement requires only a treatment of a month or six weeks, whilst under the best care scirrhus will require a much longer period. The treatment varies according as the affection is acute, that is, accompanied with pain, smarting, and heat; or as it has passed to the chronic stage. In the first case we employ antiphlogistics, in the second resolvents, either internally or externally. Finally, if the disease be very obstinate, we have recourse to setons, moxa, or even the actual cautery.

But you may ask me, Gentlemen, if scirrhus be really capable of cure. I have not the least doubt of it. Do not we see every

day scirrhous enlargements of the mammæ and lymphatic ganglia give way? and the case is more frequent when the uterus is affected. Without doubt we are not to give the name of schirrus to every hard unequal tumour, which causes pain merely by its dragging and pressure on the neighbouring parts, for the same indurations and inequalities, accompanied by vegetations and tubercles, are seen in certain ulcerations of legs in old men, without giving any idea of cancer, and why not the same with respect to the uterus? I partook of the same error as others for many years, and was only corrected by experience. About six years ago we gave up two females who presented all the characters of a scirrhous affection of the uterus; but these very women are now perfectly well, and what is more remarkable, have become well by the help of nature alone. Simple white engorgement may be complicated, as well as scirrhous with ulcerations and vegetations; hence, even when the diagnosis is obscure, we should not be too much discouraged. I have treated two cases in which all these symptoms existed, with an enormous engorgement of the uterus, and both became, finally, perfectly cured.

LECTURE VI.

ENGORGEMENTS, TUMOURS, AND CANCERS.

Engorgements of the uterus; peculiar tumour of; uterine polypi; ulcerations of the womb, scrofulous and simple; fungi of the cervix uteri; cancerous vegetations.

In order to complete the history of uterine engorgements and tumours, it remains for us, Gentlemen, to speak a few words on a peculiar tumour of this organ, and on the nature of the polypi of which it is often the seat.

I. ON A PECULIAR TUMOUR OF THE UTERUS.

We sometimes find a tumour, whose nature is but little known, developed in the substance of the uterus, and to which it is of importance to direct your attention. Its most common seat is in the lower and posterior part of the uterine parietes. When we pass the finger through the dilated neck, into the cavity of the uterus, we find a tumour varying in diameter from that of one shilling to a crown-piece; it is but little prominent, rounded, more or less well-circumscribed, and fixed into the parietes of the uterus like a marble with which children play, projecting by one-half of its mass. It is neither as hard as the fibrous polypus, nor as soft as the vascular one. Sometimes it is insensible to the touch, at

other times any handling occasions excessive pain in the part; its form seldom varies, and in most cases the rest of the organ remains perfectly sound. Is the tumour, Gentlemen, of a carcinomatous nature, or is it simply the result of partial inflammation in the uterus? Is it a white, indurated, scirrhous point, a polypus, a cyst, or a cartilaginous or earthy concretion? Pathological anatomy has every now and then demonstrated the existence of these different produets in the uterus; but as to the precise nature of the tumour concerning whieh we speak, it must be confessed that examination of the living body has not been sufficient to explain it satisfaetorily. In cases of this kind, the curative indications are confined to two eircumstances: — to eombat any inflammation which may exist, and, when this state has been removed, to have recourse to discutients, which, however, should be employed with great reserve. These tumours have been considered as necessarily mortal; I do not agree in this opinion; I have treated many women affected with similar tumours, and have often prevented them from passing into a state of degeneration by dissipating the inflammatory symptoms: sometimes they disappeared altogether; on other oeeasions they bccome small and indolent, exercising no influence on the general health. However they are subject for a long time to take on a fresh irritation, which must be subdued by the means already pointed out at length.

II. ON UTERINE POLYPI.

The history of uterine polypi has been studied with more care and attention than any other elass of uterine diseases; I shall therefore direct your attention only to certain points which are either little known or entirely new. The two varieties of these tumours, whieh we most frequently find, are the cellulo-vascular and the fibrous polypi. The first variety is commonly found on the lower part of the neek of the uterus, between its two lips, or on the inferior and internal surface of the womb. They are in most cases small, single or multiplied, presenting the shape of granulations, sometimes fixed, with a large base, but more frequently hanging from a pedicle more or less elongated. In the latter case it is often difficult to recognise them by the toueh if the pedicle be implanted above the neck, for they yield to the finger, and pass into the cavity of the uterus, where you must follow them with the finger, a manœuvre generally possible, on account of the dilatation of the neck. These tumours may be removed in the following manner: — the vagina is to be distended by the speculum, and the parts cleaned of any mucus, &e., whieh may obscure the vision; the polypus is now to be seized with a long forceps, twisted round as often as may be necessary, and removed; the only precaution you have to take is to seize the polyus near its root, in order to exterminate it more completely, and you convince

yourself that this result has taken place when you feel a slight depression at the spot where the pedicle was inserted.

The polypi are often accompanied by hypertrophy and œdema of the neck, or engorgement of the uterus itself. Hence you have not finished the cure when you have operated, particularly as the wound which is left becomes a cause of irritation to the organ already affected. Eight or ten days after the operation, you should carefully examine the state of the cicatrix, and conduct the case according to the symptoms which may present themselves. Fibrous polypi may be removed in the same way, when the pedicle is very small. As to the ligature, we regard it as a bad measure, only to be employed when all other means are inapplicable. Excision of the polypus is by far the best operation ; the manner of excising the tumour is simple and known to you all; the tumour is seized with a forceps, and drawn down until the neck of the uterus presents at the vulva ; when this is down, you pass up a finger along the pedicle, and conduct a pair of curved scissors along it, with which the excision is completed. Whenever the pedicle ascends too high into the uterus, the neck of the organ must be incised, and this gives you every facility for completing the operation. There is no danger of hemorrhage: I have never seen more than a few spoonfuls of blood lost, and in all cases the bleeding may be arrested with certainty by the plug. But sometimes the polypus is too soft, and gives way under the forceps when we attempt to draw it down. This circumstance would seem to render excision, as we have described it, impossible ; here you must seize, not the tumour, but the neck of the uterus itself. You have not to dread any ill consequences from the slight wound made by the point of the pincers. Leeches, you know, are applied to the os uteri without causing any pain, and even the division of the neck is not painful. Pressure appears to be the only means by which any excessive sensibility of this part is developed. This is a remarkable phenomenon, but is not without its analogy in the human economy.

Let us now examine facts which may be cited in support of the operation which we recommend.

Case 1. — A few months back I was called upon to attend a young woman in the Rue Cherche-Midi, who had been attacked with alarming hemorrhage fifteen days after an easy labour. The hemorrhage had recurred at intervals since its first appearance, and destroyed the health of the patient. When I first saw her, she seemed on the brink of death. MM. Andral, Hatin, and Bouilland, had been already consulted on the case ; I recognised the existence of polypus, fixed on a large bone near the bottom of the uterine cavity ; no time was to be lost ; the operation was resolved upon ; but the polypus was soft, spongy, and gave way on the least effort being made to draw it down ; I therefore seized the neck of the uterus with the forceps, and brought it down to the vulva ; the examination of the tumour now became more easy ; the fingers

could be passed round the base of the polypus. On taking into consideration the weakened state of the female, and the manner in which the uterus was dilated, I resolved to employ the ligature, which was accordingly applied by means of Leuret's instruments. As soon as the ligature was drawn tight, the hemorrhage ceased. On the following morning a few ounces of blood were drawn from the arm, as the pulse appeared somewhat developed. On the eighth day the polypus was changed into a putrid mass, and on the fifteenth day the patient was perfectly cured, though a little weakness still remained. The wounds made by the forceps did not produce any inconvenience.

Case 2. — Some time after this, the sister of a captain in garrison at Paris, placed herself under my care for a similar affection. I found two polypi inserted close to one another in the interior of the uterus, about half an inch above the os tincæ; one was as large as a big nut; the other was elongated, and attached to a slender pedicle, which glided along the former. I seized the larger tumour with a forceps, and brought it down to the vulva, and there passed up a curved scissors upon the two pedicles, which I endeavoured to divide by one cut; the larger polypus was thus removed, but the other ascended with the uterus, and seemed to have remained untouched; the smallness of its pedicle put it out of the question to think of seizing the polypus, I therefore fixed the hooks in the neck of the uterus, brought down that organ to the vulva, excised the polypus, and in three days the patient was able to walk about the garden of the Luxemburg.

Here, Gentlemen, we may discuss a question, which no author has noticed. When you are convinced of the existence of a polypus, and of the urgency of operating, should you defer the latter because the woman happens to be menstruating? I will relate to you the following case as an answer: —

Case. — A young woman came from the south of France to Paris to undergo treatment for some affection of the uterus; she was treated, during three months, for an engorgement of the uterus, without any benefit, when M. Latapie consulted me. It appeared that every eight days she was seized with strong expulsive pains; this is a remarkable symptom, and should always make us suspect the presence of some tumour in the uterus. I touched the woman, and found the os uteri dilated, — almost effaced. Having forced the finger into the uterus, and described with it those rotatory motions which I have already noticed to you, I succeeded in discovering a rounded body, projecting from the surface about a line and a half; the toucher was repeated several times, in order to avoid all error; and, finally, having succeeded in passing the finger between the tumour and the parietes of the uterus, I announced with certainty the existence of a polypus. As the patient was evidently sinking, an operation became urgent; but as the menstrual discharge was expected next day, we thought it right to defer the removal of the tumour; unfortunately hemorrhage came

on, followed by peritonitis, and the patient was carried off in two days; the examination of the body confirmed the diagnosis which we had formed.

Since that time I have seen another female destroyed by a metro-peritonitis supervening during the menstrual discharge; hence I have formed the resolution for the future not to defer an operation which the circumstances of the case render urgent, because the woman may happen to menstruate at the time.

ULCERATIONS OF THE UTERUS.

We have now, Gentlemen, to consider a part of our subject, at once important and difficult — viz., the ulcerations which are developed on the neck, or in the body of the uterus. In order to treat these affections with the greatest clearness and order possible, I shall speak, in turn, of injections and phlyctenæ of the neck, which often precede, and sometimes simulate, ulcerations; of ulcerations, properly so called; of scrofulous ulcers succeeding tubercles; of those fungous tumours produced by certain ulcerations; and finally, of carcinomatous ulcers and vegetations.

I. OF INJECTIONS AND PHLYCTENÆ OF THE NECK OF THE UTERUS.

In almost all women affected with abundant discharge from the vagina, we find the posterior lip of the neck of the uterus coloured red, and this state of injection seems to depend on the contacts of the fluid secreted by the uterus, in the same way as the tears cause redness, and even excoriations, of the cheek, in cases of epiphora. They are of little importance in themselves, but the mucous membrane may finally become altered, unless the catarrhal state which gives rise to them be attended to.

There are, however, other injections, totally independent of this course, seated in a part, or in the whole neck, of the uterus, while the vagina retains its natural colour; they bear a general resemblance to those spots produced on the skin by a dartreous affection; they are of a red-brown colour, indicating inflammation, and are slightly elevated above the level of the surrounding healthy parts. In some cases they are found in isolated spots, and as perfectly circumscribed as if made by a nipping-tool. I have sometimes seen them formed by a net of small vessels, arranged as we find them in inflammations of the pharynx. In all cases they are accompanied by simple engorgement of the part; very rarely by induration of the neck; and we generally find, upon touching the woman, that the mucous membrane is soft, thickened, velvety, and bleeds with great readiness. As these injections sometimes terminate in inflammation, they merit peculiar attention. When they are accompanied by shivering, heat, and pain, we must employ antiphlogistics, general baths, lavements, and emollient drinks; if

the pain be very excessive, we must moderate it by the use of narcotics, and a revulsive bleeding from the arm. When the local irritation has been thus removed, these injections sometimes disappear, but in general the least exercise, copulation, or the use of any exciting fluid, &c., brings back the acute stage and all its symptoms. You should not, therefore, be deceived by a remission of the symptoms, and believe the affection cured, because it has passed into a chronic state. In the latter condition, antiphlogistics are no longer useful; here is the time to apply astringents to the affected part; but the manner of applying them is by no means indifferent. Some practitioners introduce every day, by means of the speculum, a plug of lint dipped in the astringent fluid; but this is a manœuvre highly calculated to produce fresh irritation, and at the most only applicable to women of the town, whose organs, accustomed to the contact of foreign bodies, have lost a great part of their sensibility. Injections are also prejudicial; if very strong, they irritate the mucous membrane of the vagina, and if weak, they produce no effect on the neck of the uterus; the best means — one which often succeeds upon the first application — is to cauterize the parts gently with the nitrate of mercury. The affected surface should first be touched softly with a brush, so as to remove any mucus, &c., which might oppose the action of the acid; then you apply the cauterizing substance very lightly — just enough to whiten the injected spot — and you often obtain a perfect cure in eight days.

We sometimes see the neck of the uterus marked with small miliary vesicles, discreet or confluent, limited to a part of the neck, or occupying its whole surface. When these vesicles burst, they give rise to small superficial ulcerations, which often unite together, and form excoriated spots of some extent. Sometimes instead of vesicles we find pustules of a larger size in greater or less number, and very similar to aphthæ. In this case also I prefer cauterization with the nitrate of mercury to any other means.

II. SIMPLE ULCERATIONS.

I commence this division of our subject, Gentlemen, by noticing, that as the lower lip is more frequently the seat of inflammation, eruptions, ulcerations, &c., than the upper one, so the posterior lip of the os tincæ is more frequently affected than the anterior. There we most frequently observe injections, phlyctenæ, and ulcerations. However, ulcerations may exist in other parts; for example, between the two lips of the os tincæ, — where they may escape your notice, unless you take the precaution of raising up the anterior lip, or higher up, near the cavity of the uterus. In the latter case their existence can only be revealed by the touch. The neck, usually dilated, permits the finger to penetrate, and instead of the polished serous-like surface which the uterine membrane presents in a healthy state, we find it thickened and floccu-

lent; and although the touch may have been exercised with the greatest delicacy, the finger often returns stained with blood. Under these circumstances you cannot mistake the nature of an alteration, the extent of which it is at all times difficult to determine.

Ulcerations of the uterus present very different appearances; sometimes they are confined to simple excoriations, at others they exhibit a slight excavation; and, in many cases, the mucous membrane being thickened, and the edges swollen and prominent, they appear deeper than they really are. Sometimes the bottom of the ulcer is rough, and divided by fissures, or it may be covered by fleshy granulations, which, in certain cases, assume a fungous appearance, and have been mistaken by inexperienced surgeons for carcinoma. It is not always easy to distinguish a simple injection from an ulcer or excoriation; it is almost impossible to get a side view, at the bottom of the speculum, and the front view is subject to error. However, the diagnosis is of great importance. For example, in the case of a cicatrix resulting from amputation of the neck; a sign of great weight, one which has seldom failed me, is obtained in the following manner: pass a pencil of fine charpie softly over the affected spot; if it be an injection, you have no effect produced; but if an ulcer exist, you will find some trace of blood on the lint. Some superficial ulcerations bleed very readily. You should always suspect these; the accident shows, in the first place, that the uterus is gorged with blood, no matter from what cause; but what we have most to dread is, the development of a varicose tumour, of which we will presently speak. In some women the slightest excoriation, with or without induration, may give rise to almost all the symptoms of cancer. During the epidemic cholera, we had anatomical proof of the simplicity of these ulcerations. Several of our patients died, and the neck of the uterus was examined with the utmost minuteness; the mucous membrane was found red, softened, a little fungous; the ulceration was superficial, and beneath it the tissue of the uterus was sometimes superficially affected and soft, at other times perfectly sound.

Cauterization is the chief method we employ for the cure of simple ulcerations; but to be successful it requires certain conditions: if, for example, the uterus be affected with general or partial engorgement, to such a degree that the volume of the diseased part is doubled, I would not advise cauterizing. I have seen the opposite principle followed in many cases, and the operation was almost invariably followed by metritis or metro-peritonitis. Death has sometimes been the result, and hence several physicians regret this measure, although its danger is entirely the result of their own inexperience. Thus, take it as the first rule, that any considerable engorgement contraindicates cauterization; a slight state may permit it. In the first case our whole attention must be directed to the state of plethora in the uterus; the second is an exceptive

case, where a superficial ulceration has made considerable progress, in spite of the medical remedies employed. Here also you may try the cautery, but with reserve, and be ready to suspend it on the slightest appearance of the accident which we have pointed out.

Inflammation of the vagina, or of the neck of the uterus, and even excessive pain of those parts, are also contraindications. Finally, you should never cauterize four or five days before appearance of the menses, during their discharge, or three or four days after, lest you may add an artificial irritation to that which is already seated in the uterus. The method of applying the caustic is of great importance to be considered, and this means has been for a long time brought into disrepute by the imprudent manner in which it has been too often employed. Thus, some physicians pass up to the neck of the uterus lint moistened with the nitrate of mercury, and keep it in contact with the part for ten minutes. Others employ cones of caustic potass. What can we expect from the use of such irrational means, except that which actually takes place, viz., excessive and even fatal inflammation, perforation, obliteration of the vagina, &c.?

I have applied to ulcers of the neck of the uterus the principle laid down by M. Alibert, for the cauterization of destructive cutaneous dartres, *i. e.*, to cauterize superficially, much less with the object of destroying the tissue than changing their vital action. On this principle you have seen many superficial ulcers partially cauterized at this hospital, and the effect has been to modify the whole surface. I proceed in this manner: As soon as the speculum has been introduced, the mucous layer is removed with a fine brush. Should the ulcerations discharge a little blood, I inject cold water; and if this be not sufficient to arrest it, the bleeding surface is cauterized. When the hemorrhage has been completely everted, I remove the clot which causes the ulceration, and then cauterize the subjacent tissues. For this purpose I employ a small, fine brush, like that used by miniature painters, and when the surface of the ulcerations has been sufficiently touched I pour cold water into the speculum to arrest the action of the caustic, and prevent it from spreading beyond the diseased surfaces. When the lotion has remained for about a minute, the speculum is withdrawn.

The proto-nitrate acid of mercury, Gentlemen, is the caustic to be prepared for these operations. I have made numerous experiments with different substances, and find this infinitely the best. I prefer it to the nitrate of silver, which has the disadvantage of frequently bringing on the menstrual discharge. This is a phenomenon of which I am unable to give you the explanation.

The effects of cauterization are different in different women. In most cases it is not even felt by the patient; but in others, on the contrary, it produces excessively acute pain; and frequently we remark that the pain does not commence before the fourth, sixth, or eighth cauterization. Perhaps the first applications act only on the

morbid tissues, while the latter, being placed in contact with parts which have returned to a state of health, act, consequently, more sensitively. The pain generally shows itself one or two hours after the cauterization; or is, at all events, much exasperated by it. The patient feels a smarting about the womb and loins, and the symptoms may remain from one to twenty-four hours, rarely longer. They are removed or quieted by cool emollient injections; small clysters, composed of a decoction of linseed and poppy; warm baths continued for a long time; or finally, by a revulsive bleeding from the arm. Up to the present day, I have cauterized an immense number of female patients, and have never met with any dangerous accidents. The application of the cautery produces much greater pain during bad weather, and when there are sudden variations of temperature. We all know the power of atmospheric influences on females, and especially on those of a nervous constitution. Some women, indeed, cannot bear the operation at any time, but this is a rare case. I have only seen two examples of the kind; although we had previously employed baths, emollient injections, bleeding and narcotics, until all pain had disappeared, the operation gave rise to a renewal of the symptoms, pain, a burning sensation in the parts, nervous derangement, and diarrhœa, to such a degree, that we were compelled to lay it aside altogether. Another anomaly, less rare, but not less remarkable, is this: a woman who has suffered excessively from one cauterization, will not suffer at all when the operation is repeated in eight or nine days afterwards, and *vice versa*. This I have frequently observed, but cannot attempt to explain to you why it occurs.

The cautery is, in most cases, applied every eight days. Should it cause much pain, you may wait for an interval of ten or twelve; but here a question presents itself: At what period are we to judge that the cautery has been sufficiently applied, and when may we cease to employ it? The object of cauterizing is to modify the surface of the ulcer; to reduce any granulations which are exuberant, and to dissipate the hardened or hypertrophied condition of its edges. If you obtain these results after two or three applications of the caustic, and if the formation of a cicatrix proceeds from the circumference to the centre, touch only the latter point, and you will often find the cure completed after four or five applications; but in many cases, when the cautery has been employed four or six times, the cicatrix becomes stationary, and then many physicians advise you to continue the operation. I fell into the same error for a long time, but was at last undeceived in the following manner. Having fallen ill, I ceased to cauterize my patients for a month or more. Many others were compelled to leave Paris on account of private business, &c., and when I saw them again, they were either completely cured, or in the way to convalescence. These observations were not without some benefit, and now I adopt the following line of practice.

Having cauterised the surface five or six times, when there is no longer any trace of luxuriant granulations, induration, violet

colour, &c.; in a word, when the ulcer presents a healthy aspect, I suspend the use of the acid, whether the cicatrix makes progress or not, and prescribe, for three or four days, emollient injections, which I afterwards replace with a fluid of a more stimulating nature. At first view we might be inclined to think that the chlorate of soda should produce the same effects here that it does when applied to ulcers of the legs; but experience does not confirm this; in fact, it has completely failed. We have also tried decoctions of the pomegranate-bark, of roses, &c., of various degrees of strength, all without any use. Finally, we have employed the infusion of bark, a scruple to a pint of water, gradually augmenting the quantity, or substituted the decoction for the infusion. This liquid, used as an injection, has appeared to produce more effect than any other, and has been sufficient to cicatrize, in a few days, ulcerations which were rebellious to every other means. These injections may excite heat and slight smarting pain for five or ten minutes. Should those results persist for a longer time, you must dilute the liquid with water, or suspend its use altogether. Thus, Gentlemen, whenever the caustic is not sufficient to effect a cure, you have recourse, with success, to the injection now mentioned; and, as sometimes happens, if the latter means should fail to produce a complete cicatrix, you recur again, in a few days, to the cautery, which is then generally effective. It appears that the bark, in such cases, has modified the surface of the ulcer, and renders the subsequent use of the cautery more efficacious; in fact, it is known to favour the development of granulations.

The time necessary to obtain a perfect cicatrix varies very much, and it was difficult to lay down any rule upon this head. Some women are cured in fifteen days or a month; others remain under treatment for three or five months, or even longer. When the cicatrix is formed, you sometimes see several small white points developed upon its centre; but it generally remains red, and may be mistaken for a superficial excoriation; here, as a side view cannot be obtained in the speculum, you must have recourse to the measure already noticed, and pass a bit of charpie over the surface to see if it bleeds or not.

You now understand, that the treatment of ulcerations of the uterus presents very different indications, and that it was essential to dwell upon them in the manner we have done. The cautery has been recommended as a general means. We do not mean to deny that some cases may be cured by antiphlogistics or revulsives alone, but they are so rare, that we would not estimate them above 1 in 100. It is unnecessary to say that the cautery need not be employed after it has been used sufficiently to produce a cicatrix.

III. SCROFULOUS ULCERATIONS.

I define a scrofulous ulcer to be one which succeeds the formation of tubercle in the neck of the uterus. In the five or six cases of this kind which I have seen, the general constitution of the patient,

and the issue, through a small opening, of a caseous matter, analogous to that furnished by the cervical glands when they suppurate, have left little doubt on the diagnosis. You have seen, Gentlemen, one of those women in the Salle St. Augustin. As the neck of the uterus became engaged in the speculum, the pressure of the instrument produced a discharge of cheesy matter from a small orifice which conducted to an abscess in the uterine parietes. This woman was cured, became pregnant, and was delivered without any accident. You may also see the ward-maid of the same ward; her uterus was enormously distended by a tubercular abscess situate in the posterior wall; the abscess opened externally, and the female, after two years of treatment, now enjoys a state of health of which you all may judge. These abscesses ordinarily pursue the same march as a cold abscess: you may feel the fluctuation with the finger, and open them with a bistoury if you think right. The narrow fistulous opening by which this pus is at first discharged, increases insensibly. The edges of the orifice being destroyed by ulceration, soon leave the bottom of the cyst exposed, appearing gray, ragged, irregular, and discharging an abundance of disagreeable matter, quite different from that of cancer. The abscess is sometimes accompanied by an engorgement of the uterus and its neck; this was the case with our ward-maid, and it was a long time before we were able to dissipate the engorgement after the ulcer had been cicatrized. The uterus is sometimes knotty, a circumstance which often gives rise to a suspicion of cancer when it does not exist. I fell into this error, with several other physicians, in the case of the ward-maid to whom I have before alluded; in fact, if we except the lancinating pain, she had all the symptoms of cancer. The fluctuation of the abscess is the first thing which may awaken your attention to the real nature of the disease, and at a later period all doubt will be removed by the issue of caseous matter, the readiness with which the ulcer closes, and the quickness of the cicatrization. The treatment consists at first in the use of antiphlogistics, should there be any inflammation, taking care to regulate them according to the constitution and strength of the patient; afterwards you may employ astringents and the cautery, and second their action by the internal use of bitters.

IV. FUNGOUS TUMOURS OF THE NECK OF THE UTERUS.

This severe affection succeeds, as I have said, to certain superficial ulcerations which bleed with great facility.

Cases. — Some few years ago I saw two women in whom each application of the speculum produced a considerable discharge of blood from ulcerations of this kind. Although I could not discover any softening of the tissue by the touch, I proposed cauterization to prevent any further progress of the disease; but this advice was not followed; in some time I was recalled, and found both patients

affected with a well-marked fungus hematodes, which soon carried them off. About fifteen months ago I recognised in another female an ulceration presenting this character of bleeding freely. I again advised the cautery as a necessary measure; but the attending physician would not consent. This same lady returned to consult me three months back; she has a fungous tumour of the neck of the uterus, the results of which may be easily foreseen. In these three cases the fungous or varicose tumour had extended from the neck of the uterus to the upper part of the vagina, a circumstance which rendered any operation impracticable. Whenever, then, you happen to meet with ulcers of this kind, your first care (unless there be inflammation) should be to cauterize them at once, in order to arrest the progress of so dangerous an affection.

When the fungous tumour is well developed it is soft, velvety, divided by fissures, and separated into masses; it gives rise to a very abundant exudation of albumen, or frequently to dangerous hemorrhage. What can art do when the removal of the tumour is no longer practicable? We may touch it gently every eight days with the caustic, to retard its progress; by this means I have prolonged the life of several patients. Compression might, perhaps, be advantageous, but we possess no observations upon this head. It is unnecessary to tell you that removal of the tumour is the only efficacious remedy, and that it should be performed at once, as soon as the necessity has been established.

V. CANCEROUS ULCERATIONS AND VEGETATIONS.

It now remains for me to speak of cancer of the uterus, a subject the more difficult, from the varied forms of cancer in this part of the body. Sometimes it appears as an ulcer accompanied by vegetations and hardened points, still in a scirrhous state; sometimes the finger sinks into the tissue or into a slough, from which it returns covered with a matter horribly fetid, and in this case the patient, tormented by pain, diarrhœa, and an erratic fever, with a yellow tint of face, and spreading about her an abominable characteristic odour, reveals to the most inexperienced eye the disease which destroys her, and its approaching termination: but at other times the picture is less sombre. We find a dry ulcer, without pain, but it eats away the tissue of the uterus, like those destructive ulcers of the face. Are these true cancers? The answer can influence our practice but little: in every case we must apply ourselves quickly to the removal of the disease; for as it advances the pain is awakened, and becomes of the most horrible nature, especially if the woman be nervous. Sometimes this pain assumes a strange inexplicable character of intermittence. Thus I have seen some cases in which the pain returned every five or six weeks. You may see them yourselves in the Salle St. Augustin, where they have been for one or two years. On other occasions a general or partial engorgement of the uterus is attended with the for-

mation of vegetations; they are soft, easily torn, fill the vagina, and sometimes project beyond the vulva, bleeding on the least touch, and secreting such a quantity of fluid, that I have seen women wet fifty or sixty napkins in the course of the day. This secretion exhales a bad odour, and excoriates the thighs, even where they have been covered with a fatty ointment. It is remarkable that the woman does not suffer at all, if we except a little uneasiness and weight about the pelvis, and a little pain in the loins; the body remains fat, and the face retains its colour, and this appearance of health deceives the physician, especially before his attention is awakened by the discharge from the vagina. Are we to regard this as a case of cancer? But whence then have we the absence of local pain; it is true, generally speaking, that the pain comes on at a later period; and I am inclined to think that the disease is not cancerous in its origin, but becomes so as it advances. I have cured three cases of this kind. In the case of a woman, given over by three physicians, the fungous tumour came away of itself, did not reappear, and her health is perfect at the present day.

Truth compels me to avow, that if we except the simple ulcers of which I have first spoken, and scrofulous ulcerations, the differential diagnosis of all the others rests in the greatest obscurity. Some writers, indeed, have attempted to lay down characteristic signs, but you will in vain seek these at the bed-side of the patient; and if the disease progresses, and laughs at all our efforts, what signifies whether we demonstrate its carcinomatous nature or not, when the health is destroyed, and no hope of safety is left except in operating? This is the answer I would give to those superficial critics who have reproached me with removing the neck of the uterus, when they could not find there any scirrhous or cancerous matter. Are we to leave the disease to go on and become incurable? When every other hope of cure is lost, and the affection still continues to exercise a deleterious influence on the economy, the part should be removed without delay. This is true surgical philosophy. When these ulcerations are of a doubtful character, if the smallness of their extent permit us to defer operating, we commence by attacking the state of engorgement. When the woman gets weak from the abundance of the secretion and the supervening hemorrhage, we have tried in five cases to destroy the vegetations with the finger, and then cauterized. Twice the cautery gave rise to inflammatory symptoms, and we were forced to abandon it.

LECTURE VII.

AMPUTATION OF THE CERVIX UTERI.

Of the neck of the uterus; general considerations on the operation; indications for and against it; the surgical anatomy of the parts; the lecturer's method of performing the operation; accidents which may arise from it; means proper for healing the wound.

I. GENERAL CONSIDERATIONS.

The period, unfortunately, is not very distant from the present time when diseases of the uterus were involved in great obscurity. On the one hand they were considered as essentially fatal, when they had made a little progress; on the other they were completely mistaken or neglected, as inconveniences too simple to arrest the attention of the surgeon. In the former case the practitioner, struck with the inefficacy of his art, found himself compelled to employ nothing but palliative measures, and saw his patient fall a victim to the most violent suffering. But within a few years numerous researches made in pathological and surgical anatomy have thrown considerable light on this important part of pathology. The means of examination have become more certain and numerous, and the causes of uterine affections have been traced with a care and attention which have not failed to produce the most happy results. It has been shown, for example, and experience sanctions the assertion, that muco-purulent discharges, uterine hemorrhage, and prolapsus of the uterus, were not essential diseases, as had been imagined at the time, but symptoms of an alteration more or less grave of the tissues of the organ.

By a more rigorous examination of the symptoms revealing the alterations of the uterine tissues, we are now enabled to establish new distinctions to prove, by pathological anatomy, and the effect of treatment, that many uterine diseases are much less dangerous than have been imagined, and that they frequently are neither of a carcinomatous nor a scirrhous nature; that by far the greater part commence by a very simple change, and that if attacked at a reasonable period after this commencement, they very rarely resist such therapeutic measures as were employed to combat them at the Hospital of La Pitie. Within the last few years, a great number of females have been discharged cured from the hospital, without having undergone any operation, and since that time the afflux of patients with uterine disease has increased to a great extent. Nevertheless the number of operations has diminished, and I now perform amputation of the neck of the uterus once or twice a year, whereas formerly the same operation was performed fifteen or sixteen times during an equal period. Notwithstanding this great success, disease of the uterus sometimes resists all treatment,

and removal of the neck becomes necessary as a last resource. Every surgeon knows that many women, yielding to a false shame, refuse to submit to an examination, and permit the affection to go until an operation is indispensable ; and I am compelled to observe, that although the new ideas on diseases of the uterus have already been laid before the public, yet that the old ideas are so rooted, that many physicians remain too frequently tranquil spectators of the progress made by the disease.

II. INDICATIONS AND CONTRAINDICATIONS OF THE OPERATION.

We shall first explain the cases in which amputation of the neck of the uterus ought to be performed.

1st. When the cancerous state is well-marked, and too deeply seated to permit our trying cauterization.

2d. When the disease does not extend beyond the superior part of the insertion of the vagina into the uterus.

3d. Even when the existence of carcinoma may not be well established, I think we ought to operate, if the general health daily declines, and if the patient be not relieved by other therapeutic means employed, or if they do not prevent the disease from progressing in such a manner as would soon destroy all hope of a radical cure.

Is it not well known that certain non-carcinomatous ulcers of the lower extremity, by their very injurious influence on the economy, require the sacrifice of the limb; and why should not simple ulcers of the uterus exercise a similar influence on the constitution of the female ? The uterus has a more powerful sympathetic influence on many other viscera. Experience proves that simple non-carcinomatous ulcerations of the uterus may become mortal, if not removed by the knife.

4th. We are generally recommended not to operate whenever there exists any engorgement of the body of the uterus. I think this opinion too exclusive, and would oppose it for the following reasons. Accoucheurs have proved that, in cases of extra-uterine pregnancy, the womb ordinarily presents double the ordinary volume. I have seen the same result from long-continued inflammation of the parts in the pelvis. Whenever the neck of the uterus becomes sufficiently diseased to render an operation indispensable, the body of the organ becomes more voluminous. I have been convinced of this by the autopsy of some females who died shortly after the operation. I have thus been convinced, that when, in the cases of which I speak, the uterus does not exceed double its ordinary volume, we have merely a simple hypertrophy, which need not embarrass the practitioner. This principle has been frequently sanctioned by experiment at the Hospital of La Pitie.

5th. Is the uterus more enlarged than we have just mentioned? We think that if the disease is accompanied by little pain, the existence of cancer is not certain, and that removal of the neck of

the uterus should be attempted, because the woman, according to the view of physicians, is destined to a certain death. I have seen it succeed. The increased volume of the organ was produced by the simple white engorgement, which disappeared after the operation; but before we have recourse to this means, it is right to endeavour to restore the body of the uterus as nearly as possible to its normal state, and this we have often succeeded in doing.

6th. A question of high importance ought to fix the attention of the surgeon in a special manner. Cancer of the uterus is an affection which produces engorgement of the neighbouring organs less frequently than any other. Boyle long ago pointed out a circumstance which I have verified, and which supports the present idea, viz., that diseases of the uterus are less seldom carcinomatous than has been generally imagined; and, by the above reason, we are also enabled to explain why, in removing the neck of the uterus, and a certain quantity of healthy tissue surrounding it, we much more frequently obtain success than when cancer is removed in other situations.

7th. It is necessary here to call to mind that I have proved, both by pathological anatomy and therapeutic reasons, that a tumour supposed to be carcinomatous in its whole extent, was often merely so in its centre only. Hence the possibility of reducing it two-thirds before operating. Experience sanctions these facts.

8th. Is the operation admissible after the volume of the ovaries has become doubled? M. Larrey has shown us a patient whom he cured under these circumstances, and my practice has furnished a similar case.

9th. Surgeons in general reject the operation for cancer, when the diseased part is surrounded by engorged lymphatic ganglia which they cannot remove. The observations of Desault and Soemmering are in opposition to this precept; although when those great men wrote, the therapeutic ideas at present applied to indurations were not known. In the healing art, as in many others, we are apt to fall into exaggeration when we do not know how to distinguish cases. Whenever these lymphatic ganglia are few, of recent growth, little voluminous, and not adherent, we partake the opinion of Desault; and during the period that the Faculty of Medicine charged me with the duty of external clinique at the hospital of the school, I showed the Academy a patient in whom I had obtained the most fortunate results, by following the rules which I lay down.

10th. In all cases where a viscus is affected, we are directed by surgeons not to operate until the organ has been restored to its normal state; but diseases of the uterus exercise a special influence on the chest, and the patients are frequently tormented by violent palpitations of the heart. Is the organ in this case altered in tissue, or is the affection merely nervous? The diagnosis appears to me very difficult, particularly in many cases; four practitioners most exercised in the use of the stethoscope, remained in doubt on a

case of this nature at the Hospital St. Comel, where I had requested their assistance. The woman was operated on, cured, and has since lain in without accident. The extent of the present discourse does not permit me to treat the question of the hereditary nature of cancer and the cancerous diathesis. It now remains to describe the operation of removal of the neck of the uterus, but it will be well to show first how operative medicine is based on surgical anatomy.

III. THE SURGICAL ANATOMY.

It was once thought that the vagina was inserted into the neck of the uterus by a linear expansion. From this false idea of the anatomy of the part, it resulted that the surgeon, while operating, was always in dread of wounding the peritoneum; that the whole of the disease was in many cases not removed; or, finally, that the incisions were made too close to the affected portion, giving rise to so many examples of unsuccess, that amputation of the neck of the uterus was almost abandoned. I have shown that the upper portion of the vagina covers the neck of the uterus very extensively. In front there exists ten lines between the peritoneum and lower part of the neck; behind, the distance is at least ten lines. I have examined a vast number of bodies on this point, and never found those dimensions reduced when the neck remained in a normal state. It is unnecessary to call to mind that they are less in old women, in whom the uterus is atrophied. I do not speak of varieties in the length of the neck; these have been perfectly well pointed out by accoucheurs, but a fact of great importance has escaped the notice of physiologists, and it is by a knowledge of this fact that we explain the ready manner in which the uterus is brought down to the external orifice without producing any accident. Let a speculum be introduced into the vagina, and the superior orifice of the instrument placed round the neck of the uterus; desire the woman to make strong efforts as if she were going to stool, and the speculum will be pushed down by the uterus, which ordinarily descends within an inch or an inch and a half of the inferior opening of the vagina.

IV. AMPUTATION OF THE NECK OF THE UTERUS.

Lauvariol, it is generally supposed, advised this operation in 1780; Osiander performed it with success in 1801, in the following manner: — Having placed the patient in a proper position, he traversed the neck of the uterus in two opposite points of its circumference, with curved needles armed with double threads; he then drew the uterus to the vulva by gradual traction, and removed the disease with the knife. M. Dupuytren has advantageously substituted the forceps of Museaux for the thread and needle employed by Osiander. I shall now explain the process to which he gives the preference, it is the only one attributed to him in the Treatise on Operative Medicine, published under his inspection in the year 1832. "The surgeon introduces a speculum into the

vagina, and confides it to an assistant. This being done, he seizes and gently draws towards him, with a forceps of Museaux held in the left hand, all that portion of the neck of the uterus affected with carcinomatous degeneration, and which he removes with a double-bladed knife, or with a curved, flat scissors, very long, strong, and sharp. These are to be held in the right hand, and alternately carried upward, on the side, and downward, turning their concavity inward, and making them act as much as possible on the sound parts, beyond the limits of the disease. The inconveniences attached to this process are the following: — In seizing the carcinomatous tumour, which is often very soft, it gives way, and the uterus cannot be brought down. Besides, M. Dupuytren says that he cut, with several instruments, *as much as possible* beyond the limit of the disease. These expressions indicate that the totality is not always removed. The instruments which he uses, acting in a narrow space, rather by pressure than cutting, give rise to most violent pain. The cancer can only be destroyed piece by piece; hence the diseased tissues are lacerated at the bottom of a narrow speculum, where they are masked by the blood, which prevents us from distinguishing them from the healthy tissues. This process, then, is only applicable to cases where we are prevented from sufficiently depressing the neck of the uterus, by adherences which may be formed. I have met with only one case of this kind.

M. Mayor, of Lausanne, has proposed to practise ligature of the neck with a *porte-nœud* and tourniquet invented by him. I merely quote this as an historic fact, for among the grave and numerous inconveniences attached to it, we have only to call to mind the accidents which arise when the ligature unfortunately embraces a portion of the uterus in tying a polypus. Messrs. Hatin and Colombat have invented mechanical instruments by which they remove the neck of the uterus. To reject these instruments, however ingeniously contrived, we have but to remember that their employment requires a painful dilatation of the vagina, that the cancer is often very voluminous, does not ascend always at equal points round the neck, and sometimes throws deep roots into the healthy tissues, &c.

V. METHOD OF M. LISFRANC.

The patient is placed in the same position as for the lateral operation of the stone; a bivalve speculum is then introduced; this has the advantage of embracing the tumour better, and of putting the upper part of the vagina perfectly on the stretch, in which case the circular fold, which might mask the neck of the uterus, cannot be formed. The operator now cleans the os tincæ, in order to assure himself better of the disposition of the parts, if it be necessary. The forceps of Museaux, which is longer, more strong, and less curved, than those generally employed, is carried shut immediately below the organ. As soon as the branches are sufficiently open to seize, if possible, two points of the neck dia-

metrically opposite, the operator pushes gently on them, at the same time that he fixes them in the tissue of the uterus. This manœuvre is necessary, to follow the ascension of the uterus, which would otherwise cause us to seize it too low down, or perhaps miss it altogether. The speculum is easily withdrawn, because the forceps pass into the separation between its two valves. We are now to exercise slow and gradual traction on the uterus, in order to bring its neck below the inferior orifice of the vagina. It is unnecessary to mention that the traction should be made at first in the direction of the upper axis, and then in that of the outlet of the pelvis; but in order that the uterus should be more perfectly seized and brought down, and that all the points of the lower border of the neck should equally project below, the surgeon must apply a second forceps in a direction opposed to that of the first one.

This manœuvre has another advantage. Whatever may be the tendency of the uterus to ascend into the abdominal cavity during the resection, the tissues maintained in situ may be divided either at the same, or at different heights, according to the circumstances requiring it. It is only by continuing traction for five minutes, or in difficult cases, for a quarter of an hour, if necessary, that we can obtain a sufficient degree of descent. The surgeon now carries his finger round the uterine insertion of the vagina, which is easily recognised by the presence of a kind of ring, above which he feels, on pressure, an empty space. Having cleaned the tissues, he confides the forceps to an assistant, placed in front of the pelvis. The operator himself is to the left of the patient. Having furnished himself with a curved bistoury cutting on its concave edge, and clothed with lint up to an inch of its blunt point, he directs the assistant to elevate the forceps, in order to give the uterus a kind of rotation, and expose better its posterior surface; by this means the limits of the disease are well seen, and the resection may be carried higher up.

The surgeon now glides the left index finger behind the os tincæ, keeping the palmar surface towards the patient, and measures by it the height at which his incision is to be made. The bistoury is placed below this finger, which directs it, and serves as a point *d'appui*, while the assistant gradually depresses the forceps, and brings down in turn the other points of the uterine neck. As the disease may extend itself higher on one side than the other, the assistant's duty is to manage the forceps in such a way as to incline the lower extremity of the uterus in a proper manner, that the whole of the diseased parts may be removed; he must also be careful to diminish the force of his traction as the incisions advance, or he may lacerate the tissues. The bistoury should be managed with a sawing motion to avoid injuring the great labia, or any dangerous deviation of direction, and to make the edges of the wound equal. The division is sufficiently difficult, from the great resistance of the tissue of the uterus.

But in some cases the volume of the parts does not permit them to be embraced by the speculum, and the surgeon cannot employ that instrument; here he must introduce simple hooks on the index finger, and fix them either on the neck of the uterus, or on the most resisting points of the tumour. It has been proposed to introduce certain instruments into the uterus, which, by a mechanical contrivance, expand within the organ, and thus tend to depress it. I have never tried them; they produce a contused wound, which is not removed with the diseased parts, and which must expose the patient to the well-known dangers of traumatic inflammation. If a soft fungus existed, though of small size, the introduction of the speculum might give rise to a hemorrhage, and thus render it impossible to see the neck of the uterus, in spite of injections, cleaning the surface, &c. In this case it will be better to renounce the use of the speculum, and be guided by the principles already laid down. However, as the double-branched speculum has entered the vagina, its two leaves might be widely separated, so as to allow the fungus to become engaged in the upper part of the instrument without being rubbed. Dr. Avenel reports a case of this kind, which I showed at the clinique of La Pitie.

A large tumour, ascending high up on the neck of the uterus, is not easily brought down through the vagina, and does not permit us readily to see its limits, or attack it with certainty. In a case of this kind, which is very grave, and which I have often met, I divide the fold of skin and mucous membrane, which, as I have lately demonstrated, gives the great extent to the perineum in its antero-posterior diameter. When cancer of the neck of the uterus had extended deeply into the body of the organ, surgeons, after having removed the superficial portion of the diseased parts, were in the habit of employing cauterization, a means very dangerous, and very rarely indeed attended with success. In such cases I thought of practising two semilunar incisions, which are united at the extremity, and of which the longer diameter is antero-posterior; by this means I dissect away all the diseased parts from the depth of the organ, and have obtained very fortunate results. In fact, pathological anatomy had convinced me, contrary to the general opinion, that even in cases where the extent of the disease did not permit me to remove the neck of the uterus, the body of the organ was almost always healthy, if we except some slight tumefaction due to a simple hypertrophy; I have shown preparations proving this, frequently, at the hospital. One shudders to think of the violent pain which this operation must produce; but here is a vulgar error which it is important to remove. If the uterus be very sensible, even to moderate pressure, nature has fortunately rendered it insensible to the blade of a cutting instrument; this is so true, that many women, operated on at La Pitie, thought the operation was not commenced, even when the whole neck had been removed. Besides, we know that patients are not conscious of any pain produced by leeches applied to the lower part of the uterus.

VI. ACCIDENTS WHICH FOLLOW THE OPERATION, AND MEANS PROPER TO HEAL THE WOUND.

In looking over what has been written, it is easy to see that with the exception of plugging and metro-peritonitis, this point of pathology and therapeutics has not been touched upon at all. Surgeons were too much impressed with a fear of hemorrhage; they had at once recourse to plugging; thus the uterus was unable to get rid of the blood brought to it by the irritation of the operation; and this powerful cause of inflammation, joined to the pain occasioned by the presence of the plug, often gave rise to a metro-peritonitis, which was generally fatal. When the woman has not been reduced by previous hemorrhage, I let the blood flow away if it does not come too fast, and do not usually arrest it before she has lost twelve or fourteen ounces. In following this rule, I have not been obliged to plug more than six times in ninety-nine operations, and the plug moreover was generally applied to the lower part of the vagina only, and was withdrawn in one or two hours. I have never lost a patient from hemorrhage; three only have died in consequence of metro-peritonitis.

The extent to which the present observations have run does not permit me to describe the nervous accidents; it is sufficient to say that they appear frightful to a surgeon who sees them for the first time, but they are not dangerous; after a few hours they become calm, and are removed by an antispasmodic julep. The absence of sudden suppression of the bleeding often determines pain in the pelvis; in this case I remove the clots contained in the vagina, and throw up warm emollient injections. If the blood begins again to flow, the pains usually disappear; if not, I cover the lower part of the abdomen with a poultice sprinkled with laudanum, and practise a revulsive bleeding of the arm.

Metro-peritonitis when well-marked is to be treated according to the established rules.

A small revulsive bleeding from the arm is also the best means of combating the consecutive discharges of blood which may exist either with or without uterine pain.

The rules of diet are too simple to deserve any particular notice.

As soon as all danger of hemorrhage is removed, it will be advantageous to inject into the vagina a small quantity of mallow-water nearly cold, in order to remove any sanguineous clots which may remain, and which putrify with great rapidity.

The wound, however, made in the uterus, is not favourably circumstanced for a quick cicatrization, for,

1st. It is constantly bathed by liquids more or less irritating.

2d. The depression of the uterus exposes it to be rubbed against and injured.

3d. The organization of the uterus does not permit its edges to come in close contact; hence arises a pellicle of cicatrization which covers a large surface, and requires a long time to be perfectly formed.

The injection of emollient and then of stimulant fluids, absolute rest, and the cauterization of the wound with the liquid proto-nitrate acid of mercury, should be employed according to the indications. Six or eight weeks are necessary to obtain the complete cicatrization of the wound. I cannot enter into the important question of the relapse of this disease, on which modern surgery, taking medicine as its basis, has thrown great light; and I must also pass over certain inconveniences which many women experience after their cure, but which are dissipated soon by a very simple treatment. The following, however, is an extremely important point of physiology. Amputation of the neck of the uterus proves that this part of the organ is not indispensable to pregnancy, which may take place and terminate fortunately without it. In general, labour is more easy. In ten patients who had become pregnant after the operation, one only was delivered at four months; but she had been guilty of imprudences capable of producing abortion under any circumstances. I may add that Madame Carpentier, who permits me to name her, has carried two children to the full period. Amongst the great number of women operated upon, I know only one in whom the cicatrix has completely obliterated the orifice of the uterus. She menstruated regularly, and in the ordinary quantity; but each period was preceded and accompanied by severe nervous accidents, and some symptoms of metritis, which were soon dissipated. Besides, she never exhibited any signs of sanguineous accumulation in the uterus; the menstrual discharge came from the surface of the vagina. This woman died. On examining her, we found some lymphatic ganglia engorged in the pelvis; a chronic abscess under one of the psoas muscles; no metritis or peritonitis; but it was evident that the lower orifice of the uterus was obliterated. The introduction of a probe from time to time would prevent this accident. In cases where it did take place, could we remedy it by the trocar or bistoury? Experience must decide that question.

In drawing this lecture to a close, I have merely to remark, that of ninety-nine females in whom I have removed the neck of the uterus, fifteen are dead, and eighty-four are cured, and in the former the disease was very considerably advanced. We therefore may hope, that as the new ideas on uterine disease become more extended, surgeons will be induced to operate sooner, and thus the chances of failure will be considerably diminished.

Since this lecture was written, I have performed the amputation of the neck of the uterus three times. One patient is dead, the two others are under treatment. — *French Gazette*, published June 20, 1834.

[Facts have been adduced in large number to show that, unhappily, those assertions by Lisfranc of such uncommon success in amputating the neck of the uterus are far beyond the truth. The operation is always a critical, and, in a majority of cases, a fatal one. The experience of Osiander and Dupuytren, who were once its strongest advocates, is strong testimony to this effect. See Pauly's Strictures in his edition of Lisfranc's Lectures.]

CLINICAL LECTURES

ON

DISEASES OF THE PUERPERAL STATE,

BY J. T. INGLEBY, M.D.

LECTURE I.

I. INTERNAL UTERINE HEMORRHAGE.

Forms of placentar apoplexy; illustrative case; mode of attack; local and constitutional symptoms; condition of the membranes and liquor amnii; historical references; farther illustrative cases; indications of treatment; objections against rupturing the membranes; dangers of the plug.

GENTLEMEN: — I meet you this evening (in conformity with the pledge before given) to commence the course of Clinical Lectures, which I purpose to deliver as often, during the session, as circumstances will allow. On the present occasion I wish to call your attention to the subject of Uterine Hemorrhage, in one of its most peculiar and imminently dangerous forms, — I mean hemorrhage accompanied by a detachment of the placenta, together with an infiltration of blood in its substance, constituting what has been termed *placentary apoplexy*, and arising about the close of pregnancy. It may occur either independently of labour, or whilst labour is progressing. The one object I have in view being to have the matter fully understood by you all, I will enter upon the subject without further preface, studying only plainness and clearness of description.

I have said I wish to call your attention to hemorrhage, accompanied with detachment of the placenta. First of all, then, I would have you observe, that the detachment usually commences *about the centre* of the mass, and extends to every part of it, the edge excepted, which maintains its natural apposition; consequently, a large quantity of blood soon becomes confined between the placental and uterine surfaces. The uterine tumour at these points becomes raised in proportion to the amount of effusion, its rapid

augmentation constituting the most striking feature in the case. But it is important to observe, that the effusion may commence *anywhere between the centre of the placenta and its edge*, which almost necessarily becomes more or less detached, so that whilst a large coagulum is confined, partly underneath the placenta and partly exterior to the membranes, the liquid blood continues detaching the membranes until it reaches the vagina: I have seen both forms of hemorrhage. The first, or *concealed* form, from its greater liability to deceive the practitioner than the second, may be regarded as the more dangerous case, although the extent of hemorrhage *in this form* is less considerable than *in the other*. I shall presently state a remarkable exception; but this, as a rule, is generally correct.

Case. — Mrs. B. has ten or eleven children, and was subjected to my professional notice when about nine months advanced in pregnancy. During the night of Friday, Sept. 8, a discharge of blood, both clotted and fluid, occurred several times; and at three o'clock, on Saturday morning, my friend Mr. Rice was called to see her. Although she had reached the full period of pregnancy, no pain took place until subsequently to the attack of hemorrhage, and the degree of pain which then arose was inconsiderable. The amount of hemorrhage was trifling, three napkins only having been stained, but the depression of the general system had progressively increased, and was at that time most alarming. On examining the uterine tumour, Mr. Rice's attention was immediately directed to a very marked singularity in its shape, the shape being exceedingly pointed, having its long diameter in the antero-posterior direction. I accompanied Mr. Rice to the patient at eight o'clock, A.M. There was great prostration of strength, an exsanguine countenance, and the gaping which attends the state of syncope. The pulse was feeble and slow, and the defined eminence which occupied the summit of the uterine tumour, and for some extent around it, was much more elastic than the surrounding parts. Under a strong conviction — a conviction previously entertained by Mr. Rice — that the symptoms depended upon a large internal effusion of blood, I recommended immediate delivery; and, as Mr. Rice entertained similar views of the case, he undertook the operation without delay. Although there had been no regular labour-pain, the uterine orifice was moderately well dilated, and the membranes were sufficiently distended to admit of the bag being very easily ruptured. The circumstance of the membranes being *distended*, deserves your notice in reference to the manner in which the liquor amnii acquired its bloody appearance. On the membranes being ruptured, a large amount of deep-coloured, bloody fluid instantly rushed out of the vagina. During the delivery of the lower extremities, a quantity of tolerably consistent blood, mixed with small clots, continued to escape, and, on the completion of the delivery, an immense clot was expelled somewhat forcibly. This was rapidly followed by the placenta having, upon

its uterine surface, and within about a third of its texture, a mass of coagulated blood. The coagula were so interwoven with the parts as to admit only of very partial removal, and this not without tearing the placenta. The shape of the placenta was sacculated at such of its parts as were not infiltrated, but merely covered by clot, the greater part of the blood having been confined in the sac. Brandy and the tincture of ergot, in combination, were resorted to several times during the delivery with excellent effect in sustaining the pulse, and securing an efficient uterine contraction. The patient would necessarily have been greatly alarmed by the vast disgorgement of blood from the uterus, had we not prepared her mind for the occurrence. As there was no direct escape of blood from the general system, there was no actual shock; rather, indeed, a revival from impending death to a state of comparative security. The large clot, of which I spoke above, weighed two pounds; and the liquid blood, such as, at least, could be collected, weighed two pounds more. Making allowance, then, for the blood which had become mixed with the liquor amnii, as well as for the blood which had escaped on the bed and napkins during the night, the actual loss, within six hours, must have been *upwards of five pounds, at the least.* It is certain that the uterus contained, at the moment of delivery, upwards of four pounds. I need scarcely say, that under so large and so sudden an effusion the fœtal circulation would very speedily cease.

And now, Gentlemen, let us inquire what practical inferences can be deduced from this narrative? Let us examine it in several points of view.

1st. *The Mode of Attack.* — The attack occurred *suddenly*, and was not the result of external injury — a very probable *means* of producing not only separation, but laceration of the placenta,* and laceration even of the uterus itself. Each of these injuries I have personally witnessed as the result of physical force, but in this case there was no pretence whatever for supposing the existence of such a cause. The circumstances which occasioned the separation of parts, and consequently the effusion of blood, can however only be conjectured. We can only say, with any certainty, that the effusion must have proceeded from a very large vessel.

2dly. *The Symptoms.* — The symptoms were both *local* and *constitutional.* The former comprising the hemorrhage, which appeared external to the body — the shape of the uterine tumour — the *sensation* imparted to the hand when placed over its most projecting part (a sensation of undue elasticity when compared with the very slight elasticity which characterised the other parts of the uterine tumour), and the peculiar character of the pains, the feel-

* The case related by Mr. Wildsmith is a striking instance of this kind. The patient died during pregnancy, and on examination, P.M., a clot of blood was discovered, weighing 18 ounces at the anterior part of the fundus of the womb, and the placenta was lacerated. — See *North of England Med. and Surg. Journ.*, vol. i. p. 446.

ing being one of distress from distension, rather than of suffering from contraction. Hence it is impossible to resist the conclusion, that the pains arose as a consequence of the effusion. It has been already observed, that the pains were preceded by visible hemorrhage. The *constitutional symptoms* were merely those that are common to all severe hemorrhages, viz., torpor, drowsiness, repeated syncope, a pallid countenance, a feeble, slow pulse, gaping, and coldness of skin.

I have only one remark to offer, in reference to the depression of the system, viz., that it was very great, and yet altogether disproportionate to the amount of visible discharge. Still the fact of an existing visible hemorrhage would naturally impress the mind with the conviction, that the sinking of the vital powers and the hemorrhage, slight as it was, must have had an important connection. In this respect, the evidence, if not altogether conclusive in the instance before us, was far more conclusive than characterised several fatal cases of a similar kind.

3dly. *The Condition of the Membranes and of the Liquor Amnii*, is a point not altogether destitute of practical interest. There was nothing peculiar in the state of the os uteri; it was relaxed and partially open, but these characters are common to the uterine orifice at the close of pregnancy, in a person having had several children, as was Mrs. B.'s case. The membranes were apparently entire, the presenting portion being moderately distended with fluid. The *liquor amnii* had a very bloody appearance, and gushed out very forcibly on the bag being ruptured. In its passage through the vagina, it is indeed usual for the liquor amnii to acquire a stain from the blood which may be lodging there, but here the fluid was uniformly bloody, the colour being almost as deep as blood itself. The precise cause of this is not easily explained. The fœtal side of the placenta was perfect, consequently the stain must have taken place, either from a slight tear at the edge of the placenta (a circumstance which would not prevent the presenting part of the sac from being moderately distended), or it must have been the result of transudation. I incline to the former opinion, the *period* of transudation having been very short, although the transuding *surface*, from the size of the coagulum, was considerable. Certainly the fact of the liquor amnii not containing coagula may be supposed rather to favour the view last suggested. One is naturally led, therefore, to make an inquiry as to the source of the blood. Did it proceed from the placenta itself, or from the vessels of the uterus in connection with it? What are the probabilities? The placenta was very pulpy throughout, and about one-third of the mass, from the edge towards the centre, was so completely infiltrated with blood, as to render the removal of the clots impracticable without breaking up the structure of the placenta itself. *Consequently it was impossible to detect any open vessel.* I am disposed to think that the blood proceeded from the uterine system and not from the placental, and I will give my

reasons for this opinion. As already observed, the infiltration was very limited in its extent, although it pervaded the whole thickness of the mass. Now, had the blood emanated from the interior of the placenta it could only have proceeded from a large vessel belonging to the umbilical system, and it is more than probable that the *greater part* of the placental mass would have been infiltrated. Moreover, had the case been so, I think the extravasation would have been apparent through the coverings of the fœtal surface. But it was not apparent in any degree. Neither is it probable that the blood, after traversing the interior of the mass, could have retained its fluidity sufficiently long to have passed in such large quantities into the uterine cavity. I can only account for the infiltration, by the supposition of a breach of surface having taken place in the placenta, whilst the extent of detachment was slight.

Such is as complete an outline of this remarkable case as it is possible to set before you in a lecture; and, considering the danger young practitioners are in, of forming a wrong judgment upon the symptoms, and the danger of improper treatment to the patient, I do most earnestly press upon you the duty of a careful study of this and similar cases. I will now lay before you all the information I have been able to obtain on this particular kind of hemorrhage, and a case or two not previously recorded. My own work, on "Hemorrhage," contains scarcely anything on the subject; indeed, the records respecting it are very scanty. Dr. Simpson's elaborate paper, on "Diseases of the Placenta," contains several references to the class of cases immediately before us; I recommend you to peruse this paper carefully. It evinces great research, and is replete with practical information.* Dr. Merriman alludes very briefly to the circumstance, that syncope, or even death itself, may be occasioned by an effusion of blood between the uterus and placenta, whilst "there may be very little appearance of discharge from the vagina." Dr. Blundell, also, in adverting, in general terms, to instances of death occurring suddenly in the last months of pregnancy, observes — "On laying open the body after death, two or three pounds of blood may be discovered within the cavity of the uterus, and this, too, although there may have been no external bleeding." The first case which I have met with is related by the celebrated Albinus,† where only the central part of the placenta being loosened, a large quantity of coagulated blood was lodged between it and the uterus, as it were, in a bag, and, consequently, not a drop was discharged per vaginam. "Had the nature of the case been understood (observes Albinus), the patient might have been saved by rupturing the membranes, and delivering immediately." Four cases are related by M. Baudelocque. The mother was saved in three of the cases, but the child perished in each of them. In one of these the quantity of blood behind

* See "Edin. Med. and Chir. Journ." for April 1, 1836.

† "Annot. Acad." lib. i, c. 10. p. 56.

the placenta was estimated at four or five *palettes*.* Baudelocque relates a fifth case; the hemorrhage, however, took place within the memeranes, and not behind the placenta. Two cases are related by M. de Laforterie; the first case terminated fatally, after twelve hours' labour pain, and before competent assistance could be obtained.† M. De Laforterie, however, performed the Cæsarean operation, and, on opening the fundus uteri, a pound and a half of liquid black blood immediately gushed out, which had been contained in a sac, between the placenta and the uterine surface, the centre of the placenta having been detached, while the edge remained adherent. The child was extracted alive, but speedily died. In the second case, the quantity of blood is said to have measured three French *chopines*.‡

Mr. Saumarez adduces a well authenticated, but fatal case, of this form of hemorrhage. There was no discharge per vaginam, On examination, P. M., the placenta was everywhere detached. excepting its edges, which "were completely adherent, forming a kind of *cul-de-sac*, into which blood had been poured to the amount of a pint and a half, which had become coagulated within the cavity thus formed." The patient was also attended by Drs. Denman and Denison.§ Dr. Hamilton describes two cases. In the first, premature labour occurred spontaneously. "In the central part of the placenta a strong coagulum of blood, the size of an afternoon tea-cup, was discovered. The adhesion of the edges of the placenta had saved the patient." The result of the second case was less fortunate. The symptoms were those of collapse, and "the lady felt as if she were going to burst; there was no discharge from the uterus, and no symptoms of labour. Immediate delivery was accomplished, by passing the hand into the uterus, and a dead infant was extracted, which was followed by an immense quantity of coagulated blood and the placenta. The patient almost instantly expired."‖ I now refer you to a very clear and concise paper on this subject, illustrated by a particularly well marked case, by my friend, Mr. J. M. Coley.¶ The effusion was characterised by a sudden enlargement of the uterine tumour, together with a sensation of pain, as though the abdomen would burst, and by frightful collapse of the vital powers. There was no discharge whatever from the vagina. Delivery was accomplished by rupturing the membranes, and the administration of ergot; and, on the expulsion of the placenta, it was ascertained that blood had been effused, between the placenta and the uterus,

* The *palette* contains four ounces. — Ed. L.

† See "Journ. Gén." tom. 29, p. 384, and quoted in Mons. C. A. Baudelocque's "Traité des Hemorrhagies Internes de l'Uterus."

‡ The *chopine* contains about an English pint. — Ed. L.

§ See No. 6, "New Lond. Med. and Phy. Journ." p. 535.

‖ See "Prac. Observ." part ii., p. 235–6.

¶ See Lancet for 9th January, 1830, p. 498.

to the amount of two pounds, and also extravasated within the placental cells.

I shall now mention two cases which have presented themselves to my notice. Some weeks ago I was requested to see a woman, reported to be in convulsions. Before I could reach the house she had expired — labour was supposed to have commenced the preceding evening. A respectable surgeon employed in the case, finding the pains excessively feeble, and the system much depressed, ruptured the membranes. The liquor amnii was colourless, and no hemorrhage was observable at any time. The body was examined, P. M., by the surgeon just alluded to, assisted by my friend Mr. Wickenden and myself. The form of the uterine tumour was strikingly conical. On cutting through the uterine parietes, so as barely to receive the end of the scalpel, — fluid blood rushed out like the stream in venesection. By means of a sponge 60 ounces of liquid blood were collected, and, on enlarging the aperture, a coagulum was removed which weighed 61 ounces, the whole comprising 121 ounces of blood; the placental edge was still adherent, so that there had been no escape of blood underneath the membranes. The circumference of the placenta was inordinately large. The other case, which, in several respects, is unlike the one just reported, derives an interest from the amount of blood being very trivial, and yet proving fatal to life. A young woman, from three to four months pregnant, having just eaten breakfast, went upstairs in perfect health and spirits to make her bed. She returned very quickly, complaining of feeling very ill, sat down in a chair, and expired. An inquest was held, and the body reported to be perfectly healthy. On the close of the inquest the impregnated uterus was brought to me unopened, as a fine specimen of natural pregnancy. On opening it a portion of clot of blood appeared to view. It had lacerated the chorion to a very slight extent only; but, on removing it from its bed, between the amnion and the chorion (a most singular situation to contain so large an effusion, of which Baudelocque gives no example, but refers to several examples shown him by Professor Deneux), it was found to weigh four ounces. A slight stain was also observed on the woman's linen, which from its dampness must have been recently produced. She died in a state of syncope. The nervous system must have received a severe shock at the moment of the laceration, for, of itself, so small an amount of blood could scarcely bring life into danger, even in the sitting posture. The sudden uterine distension might have had an important connection with the fatal depression of the action of the heart. The indications of treatment, in cases attended with a large internal effusion of blood, are very simple, viz., evacuating the uterus, and securing its effective contractions. In the form of hemorrhage, termed "accidental," the mere rupture of the membranes is the practice generally pursued, and with marked success — the hemorrhage ceases, and labour presently comes on; but, in an exigent case of internal hemorrhage, the same reliance

cannot be placed upon this simple operation. The objections are threefold: —

1st. The chance of the uterine contractions, either not coming on, or proving inadequate to constringe the bleeding vessels — a highly probable supposition, considering the mass of the blood which may intervene between the uterus and the membranes.

2dly. The uncertainty of the period of time which elapses previously to contractions arising.

3dly. The impossibility of determining at the moment, whether or not the hemorrhage is arrested, our opinion being regulated entirely by the constitutional symptoms.

Mr. Coley's patient was treated by the rupture of the membranes merely, and the administration of the ergot of rye; pains came on in forty minutes afterwards, and the child was expelled by the natural powers. The process of parturition, including the expulsion of the placenta, occupied but three hours. Mr. Coley was deterred from turning the child by "the death-like state of collapse."

In a case already described, attended with an effusion of 121 ounces of blood, the rupture of the membranes had no effect whatever in producing uterine action, I do not recollect whether or not the ergot was given. Hasty conclusions, derived from solitary cases, are often incorrect, and I would not be understood to say that a case may not occur like Mr. Coley's — the patient being almost *in articulo mortis* — where the milder practice might not be preferable to the sudden evacuation of the womb. Indeed, as I have already stated, Dr. Hamilton's patient died immediately upon artificial delivery. Still, whenever there is reason to believe the hemorrhage is going on, the evacuation of the uterus, by turning the child, should be undertaken at any risk, for it is very probable, that during the time we are waiting for the natural action of the womb, an additional quantity of blood may be gradually pouring out, calculated to terminate life. If this be true, the plug must indeed be a most dangerous remedy in such cases, and yet Mr. Baudelocque recommends it as a temporary measure, provided the os uteri is too rigid to admit of the hand. Nevertheless, he enforces the practice of immediate delivery as early as possible, and happily the os uteri will almost always be found abundantly relaxed for the purpose. Sufficient evidence has been adduced to show you the great danger of all cases like the present, and the inevitable consequences of indecision. Had Mr. Rice been a less thoughtful and cautious practitioner, than he is known to be, his patient would most certainly have perished — for like cases of placental presentation, nature is unequal to the emergency, and art has the pre-eminence. Amidst much that arises to discourage us in the exercise of this most responsible department of medicine, we now and then possess the certain conviction of having been, under Providence, directly instrumental in the preservation of human life — perhaps (as in this case), preserving the life of the mother of many children.

LECTURE II.

LACERATION OF THE WOMB.

Illustrative case; causes of laceration of the uterus; fibrous tumour; experience of Mr. Collins; *post-mortem* appearances; gastrotomy in laceration of the uterus; illustrative case; various opinions on this operation.

GENTLEMEN:—I wish to engage your attention this evening, whilst we enter into the consideration of one of the most fearful injuries to which a woman in a state of pregnancy can possibly be exposed, namely, laceration of the womb. Injuries of this nature have usually been attributed, either to an excessive resistance to delivery (disproportion, for instance), or to a marked defect in the resisting powers. In my published Essay on this subject I have given the details of ten cases of laceration, and since its publication I have been called to nine additional cases, exclusive of three most extensive injuries of the vagina, and implicating the peritoneum. I purpose giving you the details of two of the most important of these cases, premising a brief summary of the whole number. The first woman died undelivered, after a most protracted labour. I did not see her until shortly before her death. The head was floating at the brim of the pelvis, like a cork in water, and I thought it practicable to apply the long forceps; but I was not permitted to make the attempt. There was no examination, P.M. In the second case the pelvic brim was slightly contracted. I did not, however, see this woman during life. She also died undelivered. In the third, fourth, and fifth cases, the child presented transversely; and in one of these the fœtus had passed into the abdomen, and delivery was accomplished by passing the hand through the rent. The result was fatal in all of them. The sixth was a case of impaction, occasioned by a slightly contracted brain. The vagina gave way, and, I believe, also the cervix uteri. The pains had ceased an hour or two prior to my visit, and the uterine tumour had suddenly became so very prominent as to attract the patient's attention. Delivery was, however, accomplished by the crotchet; but extensive sloughing of the bladder, rectum, and a portion of the small intestines, took place, notwithstanding which the sufferer lived some weeks. In the seventh case the laceration was confined to the vagina, and was occasioned by a narrow brim It was the patient's eighth labour—four of her children having been still-born, and two having died within a few hours after birth. In this eighth labour the child was delivered by turning in the abdomen about twelve hours previous to my visit, and the woman lived till day. The eighth case (the subject of the present lecture) was complicated with placentar presentation, and the ninth with formidable contraction of the brim, the child being extracted by the operation of gastrotomy.

Respecting the injuries of the vagina, *not communicating* with the abdominal cavity—in the first case a large pendulous flap was noticed immediately after artificial delivery; in the second the vagina was lacerated in numerous points during an attempt judiciously but unsuccessfully made to bring the head through the brim of the pelvis by means of the long forceps, and perforation was ultimately necessary. The third case was attended by many of the prominent symptoms of laceration, including cessation of pain, a very small, rapid pulse, anxious countenance, abdominal tenderness, and black vomiting. I felt a strong conviction that a laceration had taken place, and advised the immediate perforation of the head. It was hydrocephalatous, and was easily extracted by the thumb and finger after the evacuation of the fluid. I then detected a large emphysematous swelling of the superior surface of the vagina, corresponding with the bladder; sloughing, to a lamentable extent, took place, so that scarcely any of the bladder remained. These three patients recovered, the two first completely so.

I now purpose to bring before you in detail a case of rupture of the uterus, which was attended with a defect in the resisting powers. Imminently dangerous as an injury of this nature always is, the danger must be greatly increased when the placenta is attached to the mouth and neck of the womb. I am thankful to say I have no preparation of the morbid parts to show you, for, happily, the patient recovered. In giving you the details I have availed myself of notes taken at the time by Mr. Hammond, of Handsworth, a highly-respectable surgeon, by whom the patient was attended. "On Wednesday, September 11th, 1839, at two o'clock, A.M., I was called (observes Mr. Hammond) to visit Mrs. V., suffering from profuse uterine hemorrhage at the full term of pregnancy. The previous evening (Tuesday) between ten and eleven o'clock, P.M., she was alarmed by the report of a pistol, and felt an extraordinary sensation. She went to bed, but at two o'clock, A.M., was awakened by an impulse to void urine, when she immediately perceived she had passed a large quantity of blood. On my arrival all hemorrhage had ceased; I found the os uteri quite closed, and the vagina occupied by a large coagulum. It was impossible at this moment to ascertain the presentation. On Thursday morning, the 12th, at two o'clock, A.M., I was again hastily called, and found the hemorrhage very profuse. The os uteri was very rigid, merely admitting the end of the finger. The hemorrhage being very great, I introduced a plug, and resorted to the ergot of rye; after which severe cramps took place, but no uterine action ensued till six or seven o'clock, A.M., when occasional pains were observed, though with scarcely any effect upon the body of the uterus. Notwithstanding the firmness of the plug the hemorrhage returned profusely the following morning, with sinking of the vital powers. On introducing my right hand, with a view of ascertaining the presentation, I found the placenta attached to the anterior and lateral portions of the cervix uteri, the orifice

still only admitting of the introduction of two fingers, though it was moderately yielding. The profuseness of the hemorrhage, and its effects upon the system, left me no alternative but to proceed with the delivery. My fingers acting as a plug, I proceeded cautiously to dilate the os uteri, and its progressive yielding enabled me to pass the greater part of my hand through it, I now felt something very peculiar just before the points of my fingers, which I mistook at the moment for a rent in the placenta. By a more cautious examination, however, I found that the placenta lay at the back of my hand, and that an aperture, in an horizontal direction, could be felt in the posterior side of the parietes of the uterus. This aperture readily admitted the passage of my fingers, the uterine orifice being at the moment contracted upon my hand. The character of the case being too evident, I withdrew my right hand, changed it instantly for the left, passed it over the aperture, ruptured the membranes, seized the feet, and delivered the child. The placenta, in a ragged condition, soon followed; the hemorrhage had now ceased, but the patient was sick, faint, and complained of deep-seated abdominal pain; the pulse was 130, and very weak. Brandy and water, opium, and ammonia, were now resorted to. Dr. Ingleby arrived about three hours after delivery, and made a slight examination. He reported that the rent had extended through the os uteri into the vagina, doubtless during the delivery." With a view of restraining the vomiting, solid opium, and the spirit of ammonia in mint water and camphor julep, were occasionally given. For some days the bladder was relieved by the catheter, and the bowels by simple injections; but for three weeks the patient remained in a state of great danger, and during nearly the whole of this time she lay on the left side. For many days it was unsafe to remove the clothes that she wore at the time of her delivery; but she gradually recovered, and is now merely suffering from weakness. Her recovery may be mainly attributed to Mr. Hammond's excellent management, especially to the precaution of keeping the body almost motionless. Her powers of constitution, also, were good, and her mind particularly tranquil.

This case is interesting in a threefold point of view: — 1st, As to the ostensible cause of the injury; 2dly, As to the condition of the membranes; 3dly, In reference to the parts implicated in the laceration. 1st, We have no positive evidence when the laceration took place; though possibly during the dilatation of the uterine orifice. But admitting this, it could not have been occasioned by undue resistance — for the resistance to the passage of the hand was *moderate*, and the membranes were unbroken. In many instances the uterus has been known to lacerate with marked facility. At the close of pregnancy, and prior to active contractions ensuing, its substance is very yielding, so much so, says Dr. Hamilton, "That the finger of the practitioner, if the hand be within the uterus, can be passed through it with as much facility as through

a wetted sponge."* This statement is, however, rather too unqualified. Were it as is here represented, the risk of passing the hand into the womb (in cases, for instance, of placentar presentation, in which we never wait for active contractions) would be extreme. Laceration may be expected from an *attenuated* rather than a *spongy* state of the uterus, and the specimen on the table is very characteristic of this fact. The laceration occurred under very feeble pains, and you perceive that the structures about the laceration are very thin. Attenuation of the structure of the womb may be either general or partial. The partial form usually corresponds with that portion of the organ which, in advanced pregnancy, or during a long continued labour, lies against the brim of the pelvis. The parietes give way not so much from the violence of the contraction, as from an inability to bear the same degree of contraction as they had sustained some hours previously with impunity. Structural diseases (for several of these are compatible with pregnancy) produce absorption of the proper tissue of the organ — fibrous tumour, for instance. Examine the fine specimen before you; you will see that the tumour is covered merely by the thin peritoneum. The patient from whom it was taken died soon after delivery, though not from laceration. Sometimes, again, the coverings of the womb at the close of pregnancy are so very thin as to admit of the different portions of the fœtus being distinguished with the greatest accuracy — the infant seems to be directly underneath the extended abdominal parietes. Under such conditions a breach of surface may take place, although the strength of the contractions may be very moderate, and the labour not protracted. In confirmation of my own views, I beg to refer you to the recorded experience of Dr. Collins, of Dublin; a gentleman to whom the profession is deeply indebted for the most valuable collection of cases in midwifery which has ever been submitted to public notice. The work is calculated not only for the present generation but for posterity, and the spirit of fidelity which pervades every page of it, is highly honourable to its author, notwithstanding severe strictures have been made relative to the practice employed in several of his cases of rupture of the uterus and vagina, of which he mentions thirty-four examples. In perusing these cases it appears certain that in many of them the laceration could not have been the result of forcible contractions, for "the labour in several of the cases of first pregnancy was not by any means severe, but rather the contrary." In Case No. 5 and Case 30 the child was delivered after a labour of only a single hour. In the last-mentioned case, "the parietes of the abdomen were not thicker than strong paper; the muscular substance of the uterus also was much thinner than usual," and in Case No. 24, also, "the cervix uteri was to all appearance not thicker than strong brown paper." In Mr. Schillito's interesting case of rupture of the uterus

* "Pract. Observ." vol. ii., p. 343.

the patient seems to have had only two painful contractions, and these occurred, as it is supposed, at the moment of the rent.* Even the placental portion of the uterus, which is usually the thickest, may become very thin. In one instance the attenuation had actually produced a breach of surface, and a portion of disrupted placenta had partially entered the belly, where it was suspended by a few adhesions from the uterine surface. Possibly this change might have occurred after delivery, as the result of inflammation, but in a somewhat similar instance, which I will now mention to you, the thinning could scarcely have been owing to this cause.

I was called to this patient 36 hours after the delivery of her first child. She was delivered by a midwife, at 4 P.M. on the Monday, after an easy labour of only 12 hours duration. The funis was torn away close to its placental end, the placenta being left in utero. Periodical pains, like the pains of labour, continued from the time of the delivery to the middle of the next day, when the pains subsided, but were followed in four hours afterwards by a fixed pain in the hypogastrium, which increased in severity, and was attended by vomiting and other grave symptoms. At six o clock on Wednesday morning, the patient was seen by a neighbouring practitioner (Mr. Lawrence), at whose request I was called into consultation. The abdomen was tense and tympanitic, the pulse very small and frequent, the pain very severe, and attended by vomiting of a coffee-coloured secretion. There was scarcely any discharge per vaginam. The uterine tumour could be felt distinctly; and a peculiar septum, or irregular division of the fundus, on the left side, could be plainly discovered. I suspected that a rent might have occurred; and by means of two fingers passed through the os uteri, Mr. Lawrence succeeded in bringing away the placenta. *Very great relief followed*, but it was only of short duration. The sickness returned, attended by a degree of exhaustion, which terminated life seven hours after the placenta had been extracted.

Examination, P. M. — Lymph and serum were abundantly deposited over the uterus and the viscera generally; the only peculiarity was in the uterus itself. A peculiar, hollow, flaccid appearance, like a large bag, corresponded with the fundus of the left side; and, on exposing the interior of the womb, it was evident that the placenta had been situated in this bag, which was large enough to contain the fist. The walls of the uterus, around this part, were scarcely one-eighth of an inch thick, and very dark coloured; whilst in other parts they averaged one inch and one-eighth, and were as white as natural. There was scarcely any substance, therefore, between the mucous coat and the peritoneal coat, corresponding with the parts where the placenta had been attached.

A second point of interest, in connection with Mr. Hammond's

* See "Transactions of the Associated Apothecaries of England and Wales," vol. i., p. 139.

case, is the fact of the liquor amnii not having been evacuated at the moment the rent was discovered. This circumstance corroborates the opinion I have advanced, as to the cause of the injury, for the contractions of the womb could not have been fully exerted upon the body of the child, whilst the membranes were entire. In this respect the case is not a solitary one; for Dr. Hamilton has furnished us with an example; and my own Essay contains a case of laceration of the womb, occasioned by a fall on a step, and the consequent escape of the child, enclosed in the membranes, in the abdominal cavity.

A third point remains to be considered, in reference to the parts implicated in the laceration. It seems uncertain whether or not the rent extended quite through the uterus and its peritoneal covering. I have always entertained an impression that the main danger attending injuries of this nature, depends upon a communication being formed between the rent and the peritoneal sac; and this impression has not been removed, although certainly weakened, by a very striking fact, advanced by Dr. Collins. "In 9 of the 34 cases (says Dr. Collins) the peritoneal covering of the uterus did not give way, the injury being confined to the muscular substance, and yet death ensued equally speedily, showing that the free admission of air into the abdominal cavity is not necessarily followed by an increase of danger." Granting this statement to be correct, I am still most clearly of opinion that the danger (great under any circumstances) must necessarily be heightened by the accumulation of bloody discharges in the abdominal cavity; for what possible chance of escape from inflammation can there be, whilst these extraneous substances remain amongst the viscera? The rapid recovery of Mr. Hammond's patient may be thought to constitute an objection to the opinion that the rupture passed into the abdominal sac; but the objection is inconclusive, for several cases are recorded where the recovery was still more rapid. In a case which terminated in recovery in three weeks,* it is said that the intestines and their convolutions were very distinctly felt; and, in another celebrated case,† the intestines protruded through the rent in the womb, and were with difficulty confined within the belly; and yet the patient recovered, and was discharged from the hospital on the 17th day from the accident.

Take these several cases, Gentlemen, for your encouragement, and never despair of recovery, even under the worst possible circumstances. Dr. Hamilton mentions an extraordinary fact; namely, that in the only instance of recovery which he had met with, "the symptoms seemed more adverse than in any of the fatal cases, with the exception of those where the patients were

* Vide No. 208, p. 450, of "London. Med. Journal."

† Vide vol ii. of the "Transactions of the Kings' and Queens' Association," Dublin.

moribund when his assistance was procured." Keep this fact in mind; you may derive some encouragement from it, under the responsible duties of practice.

I also embrace this opportunity of considering how far it is justifiable to resort to the operation of gastrotomy in cases of laceration of the uterus or vagina, attended with the complete escape of the child into the peritoneal cavity; it being, moreover, assumed that the child is inaccessible to instruments, and that the introduction of the hand is either impracticable or imminently dangerous to life. Having recently sanctioned this operation, I am anxious to make you acquainted with the facts of the case; for whilst the operation is recommended by some, it is reprobated by others, and yet few have derived their opinions from the only source of value — the results of practice. Let me, first, give you the details of the case itself; secondly, adduce very briefly the views of authors; and, thirdly, make such remarks as the case may suggest.

Mrs. —, ætat. 36, has had six children, several of whom were still born, and one was destroyed by perforation. The sixth labour constitutes the present case. Mr. P. H. Chavasse was summoned to the patient on Sunday morning, the membranes having given way prior to the accession of labour. Slight pains commenced on Monday evening, and on Tuesday afternoon had increased in strength and frequency. There was, however, no descent of the head, and it could barely be reached by passing the finger to the front part of the brim. But, as the pains were expulsive, and as the sacral promontory was very perceptible on an ordinary examination, it was supposed that delivery could not be accomplished, unless the size of the head were diminished. The result of former labours was also taken into account. With this impression, Mr. Chavasse requested my assistance; but circumstances prevented us from meeting until half-past 9, P. M. We then found that the pains had entirely ceased about an hour and a half previously, the presentation had receded beyond reach, and the child was plainly to be felt in the abdomen. I passed my hand into the vagina, and the ends of the fingers into the uterus, as high as the fundus. The organ was well contracted, and the placenta was still attached to its anterior surface. The funis could he felt *below the uterus*, and it was evident that the laceration was in the vagina. Vomiting had come on, but not severely, and the fluid ejected was not dark coloured. The pulse was 130, and the presence of the child in the abdomen occasioned severe suffering. The slightest touch increased the distress, and any movement of the body occasioned intense pain. In answer to questions, she told me that she had felt the child move *in the bowels;* and it appeared, that this peculiar sensation corresponded with the time when the pains suddenly left her. On a very careful examination, the space between the pubis and the sacrum was thought to be three inches, a space more than sufficient for the delivery of a child still within the womb, and after perforating the cranium; but several embar-

rassing circumstances presented themselves. For instance, the risk of the laceration being enlarged, and of the intestines protruding (as in a case mentioned in my Essay); the difficulty of opening the base of the skull, through the lacerated part, the head being quite above the brim; the risk of the perforated bones bruising the soft parts; the difficulty of emptying the brain; and the probability of the contents escaping into the belly. The idea of leaving the patient to her fate, undelivered, could scarcely be entertained; and the less so on account of the extreme and increasing suffering which the presence of the child occasioned. These things being considered, considering also that the child's head and body lay close under the integuments, so as actually to distend them, we at once determined that the section of the abdominal parietes was the best measure that could be adopted; but before proceeding further, we requested the advice and co-operation of our experienced friends, Mr. Wickenden and Mr. Knowles. Concurring in the views previously entertained, that, under any circumstances, the simple abdominal section would be attended with the least danger, those gentlemen agreed that our proposal was the only one which ought to be entertained, and that no time should be lost. This was at 12 o'clock, P.M., and we were about to perform the operation, when the exhaustion having suddenly become death-like, the pulse scarcely perceptible, the vomiting severe, and the perspiration excessive, we determined that the situation of the patient would not warrant us in proceeding, and submitted to her the change in our opinion; presently, however, an improvement took place, sufficient, as we thought, to justify us in proceeding. The section was accordingly made, and the delivery of the child accomplished, by Mr. Chavasse, very quickly and simply. An incision of five inches, on the left of the linea alba, was made over the child's body, and a large gush (at least a quart) of dark but thin effused blood took place, though scarcely any blood issued from the divided integuments — certainly not more than a tablespoonful. The intestines were easily restrained, and, on withdrawing the child and extending the funis, the placenta immediately followed. The wound was sown up and dressed; the pulse acquired firmness, and became less frequent; and we left the patient without despairing of her recovery, and she was certainly better than previously to the operation. She remained in a comparatively satisfactory state for two days, when an unfavourable change took place, and she died, apparently from mere exhaustion.

Examination, P.M. — The body was generally well formed; but the lumbar part of the spine was bent unusually inwards and forward, so as to leave a space of 6 inches between this part of the trunk and the board on which the body lay. In height the individual measured 4 feet 8¾ inches. The wound was quite air tight, its sides being nearly in apposition, and a layer of lymph lay under its inner surface. Excepting this portion of lymph, which was evidently the result of a salutary process of nature to

close the wound, the peritoneal sac did not present any appearance of lymph or other effusion; the whole of the effused blood having escaped partly at the time of the operation, and partly through the vagina. The intestines were inflated, but in no respect agglutinated; neither was the peritoneum at all inflamed, but, on the contrary, presented a pale appearance. The uterus was perfectly healthy, and well contracted. The lips were unusually large, being $1\frac{1}{2}$ inches in length and 2 in breadth. The vagina was extensively lacerated on its anterior surface, and disunited from the uterus. It presented a ragged appearance, and the laceration measured $4\frac{1}{2}$ inches. The bladder was natural; the sacrum projected greatly; the pubis was narrow, the crista being sharp, indeed quite acuminated in the centre. Including the soft parts the measure of the brim, taken by compasses and a scale of inches in the conjugate diameter, was 3 inches and $\frac{1}{16}$; in the lateral diameter only $3\frac{1}{2}$. It was measured in both directions several times with the greatest exactness. Thus the pelvis possessed almost a circular figure, and had the characters of the male pelvis. The long diameter was from pubis to sacrum, and presented almost a circular, instead of an oval figure. The child was very large, and could not, I think, have weighed less than ten pounds. There was a great degree of overlapping of the bones of the head, and consequent obliteration of the sutures and fontanelles. Notwithstanding this, the small diameter exceeded 4 inches, and the diameter from chin to occiput was $9\frac{1}{2}$; the circumference of the head being nearly 14 inches.

Remarks. — With a view of rightly determining the principle of the abdominal incision, I have consulted a great variety of authors, many of whom are altogether silent on the subject. Hamilton, Campbell, and Dewees, are decidedly favourable to it, and so are most of the French; and more especially Capuron and Murat. Burns sanctions the operation, if done early, when the child is yet alive, and before the abdominal viscera have been much irritated; though even under contrary circumstances he seems inclined to the incision, as being less dangerous than delivery by the rent, if it be much contracted. Blundell thinks the question of operation (provided the patient heartily assents to it), a matter for sober consideration. Denman, as you already know, objects to the operation in the living subject. Dr. Ramsbotham would only perform the operation under a combination of favourable circumstances, such as, unfortunately, is rather to be desired than expected. He would not sanction the incision if the vital energies were much depressed; if half an hour had elapsed; or if the fœtal movement had ceased. Dr. Collins, under the idea that the os uteri will be sufficiently dilated, seems to think that the incision should be limited to cases of rupture from external injury; but the difficulty in delivering will not be owing to the state of the uterine orifice, but to the contracted state of the rent. Collectively considered, the opinions here quoted are in favour of the operation

whenever delivery per *vias naturales* cannot be accomplished; or not, at least, without great violence. Having now laid the foregoing details before you, the main question for decision seems to be this: — Is the risk of dividing the peritoneum equal to the risk of allowing the child and the secundines, together with a mass of blood, to remain in the abdomen? The section of the abdominal parietes is not only attended with little comparative suffering, but produces marked and speedy relief. The prospect of inflammation ensuing, and implicating the membrane generally, is the only serious objection which can be urged aganst it. It is my impression, however, that an unfavourable result is to be attributed rather to the laceration itself, than to the simple incision — the objections to delivery (as Douglas observes) arising principally from the extreme danger of the original complaint.

In a case reported by Dr. Malins,* gastrotomy was undertaken when all hope was gone, and yet the patient lived till the fifth day. Gastrotomy seems to be justifiable in lacerations which occur prior to the accession of labour, the os uteri being closed; or when the parts around the laceration are too much contracted to permit delivery through the natural passages; and, also, when the pelvis is so deformed as to defeat any attempt which can be safely made. I say *safely*, for in Savage's case, related by Douglas, the body of the child was brought through the ruptured cervix, "but the head sticking at the upper aperture of the pelvis, whilst they were striving to bring it away, the patient expired." Again; the risk of enlarging the laceration, and of the intestines becoming engaged within its sides, must not be overlooked. In the only successful case of laceration which occurred in Dr. Hamilton's practice, the child was withdrawn through the rent in the womb; but he adds, that during the process of extraction the increase of the rent was clearly ascertained.† It is a much less complex affair to deliver through a rent in the vagina than through a rent in the womb: but wherever the rent may be, unless there be a fair space, exceeding three inches at the brim of the pelvis, it will be almost impossible to deliver, without certain destruction to the patient. By neglecting to deliver, the patient will be exposed to extreme pain, to internal hemorrhage, and to fatal collapse; and supposing these evils to be averted, inflammation must necessarily ensue. The hope of an outlet forming, and the fœtus being discharged by an ulcerative process, is forlorn indeed, and the best informed men in the profession decidedly countenance the practice of delivery, in preference to relying exclusively upon the resources of nature.

In the case just detailed we have a very interesting fact for our contemplation, viz., the rallying of the general system immediately on the removal of the extraneous substances from the abdominal cavity. No judicious practitioner would recommend the operation

* "Liverpool Med. Gazette." † Dict. Cases, p. 157.

of gastrotomy whilst the patient lay in a state of decided collapse; but, whilst we deprecate temerity, we must recollect that a complete rallying may be impracticable so long as the child continues in the abdomen, the effusion increasing in amount, and producing the exhaustion. Assuming this to be the case, it is evident we may wait under a false expectation, and lose the time for operating. I have already told you that the operation was undertaken when the patient had somewhat recovered from a state of collapse; and, also, that immediately after delivery the improvement was so very marked as to lead us to think the collapse was owing, not so much to the laceration itself as to the presence of the extraneous bodies in the abdomen. As soon, then, as the system is moderately recruited the operation should be resorted to. If the Cæsarean operation be ever justifiable, surely the mere abdominal section is still more so. In Protestant countries, like our own, we derive our justification for operating from considerations chiefly affecting the mother. The hope of saving the child in any case will be, indeed, very distant. The placenta soon becomes more or less detached with the extinction of fœtal life. In the French and German journals a number of cases are recorded of the mother's recovery after the operation of gastrotomy; but I have found only two where the child's life was preserved.* The length of time an infant may survive after the mother's death, is by no means well ascertained. It must depend, in a great measure, upon the circumstances of the mother's death. What reliance is to be placed on the births recorded by Harvey and others, which are said to have followed the death of the mother, I cannot pretend to say. Two very important cases have, however, occurred in our own day. The first, in the practice of Mr. Green, at St. Thomas's Hospital; the second, is related by Mr. Dawson, of Newcastle-on-Tyne. In Mr. Green's case, the child was removed in thirteen minutes from the last respiration of the mother. Dr. Blundell began the artificial respiration. During 15 minutes he continued it so as ultimately to resuscitate the child completely; and had due care been taken it would, he tells us, probably have been still living.† In Mr. Dawson's case, the fœtus was found alive in 15 minutes after the death of the mother.

The heart beat, but all attempts at resuscitation failed.‡ In conclusion, Gentlemen, I have only to express my earnest hope that you will give these important subjects the consideration they merit. Cultivate habits of industry, think patiently, store facts in your mind, and compare one fact with another. In this way you will qualify yourselves for the onerous duties of practice.

* For the full particulars of one of these cases, see "Edin. Journ. of Med. Sciences," vol. i. p. 168.

† The Lancet for Dec. 15th, 1827, No. 224, p. 425.

‡ The Lancet for Sept. 30th, 1837.

LECTURE III.

POLYPUS OF THE WOMB.

History of the case; *post mortem* appearances; hemorrhage as a symptom; appearances of the tumour; successful employment of the ligature.

Gentlemen: — I propose, this evening, to submit for your inspection a most interresting specimen of disease of the uterus, and to make you acquainted with the history of the case, adding such practical remarks as it has suggested to me.

Mrs. ——, aged 48, had been married 16 years, but had never been pregnant. She had suffered much during the last two years from frequent and painful micturition, pain in the back, pain in the right groin (the seat of which could be covered with the finger), irregular discharges from the uterus, a sense of prolapsus, and obstinate constipation. For the last six months there had been a continued discharge of an acrid, watery fluid, more or less tinged with blood, and she became greatly emaciated. These symptoms were followed by an hemorrhage, which very nearly proved fatal, and I was then desired to see her. On examination I detected a small tumour in the right groin, apparently connected with the uterus. The vagina was very much shortened, and the os uteri *widely dilated;* a tumour of an irregular character had passed into the vagina: anteriorly and latterly it had descended nearly two inches below the uterine orifice, occupying it at every point, excepting its posterior surface. In that direction I could pass my finger an inch within the neck. The protruded part was so intimately connected with the os uteri as to resemble a diseased and elongated state of the anterior lip, but a lip could be traced from the extreme edge of the posterior lip over the protrusion two inches above its lowest point. On separating the labia pudendi, the tumour presented a blue appearance, and was, apparently, covered by mucous membrane; it felt very firm when examined with the finger, and I determined to apply a ligature over it. A great change, however, most unexpectedly took place two or three days after my visit; the discharge became very fœtid, which was evidently the result of sloughing; portions of the tumour came away in a soft, white, and decomposed state, and I withdrew a large mass with the finger. Under these circumstances the idea of applying the ligature was at once abandoned, and peritonitis having come on, life terminated within a few hours.

EXAMINATION, P. M.

The peritoneum evinced marks of extensive inflammation; whey-coloured serum was largely effused, and soft coagulable lymph was deposited over the intestines generally. The fundus of

the uterus was situated midway between the umbilicus and the pelvic brim. On exposing the cavity on the posterior surface, the connections of the tumour were found to correspond with the opinion formed during life. I request you will examine the specimen accurately.

The tumour, as you may perceive, is attached to the front and sides of the uterine orifice; posteriorly, it is connected with the cervix only; the tumour, in common with the lining membrane, presents a highly sloughy appearance, and a considerable quantity of decomposed matter separated during the examination. Previously to the commencing of the sloughing, the size of the tumour must have been as large as an infant's head. Both ovaria are in a diseased state; the left is converted into a simple cyst, containing about half-a-pint of transparent coffee-coloured fluid; the right ovary is about the same size, moderately solid, and contains a pultaceous substance of the consistence of brain.

OBSERVATIONS.

We have here a tumour of the polypoid kind connected with the neck and three-fourths of the mouth of the womb by a most extensive basis. Antecedent to the commencement of the sloughing process the tumour possessed a very firm consistence, and had it been smaller I should have supposed it to have originated in the glandular structure of the cervix, its locality and the peculiarity of the discharges being such as would have led me to that opinion. Viewing it as a polypus, the absence of material hemorrhage until shortly before death is somewhat singular. The early history of the tumour, as already observed, was marked by irregular discharges, but during the last six months there was a constant discharge of serum tinged with blood. The tumour has no resemblance to the glandular structure; indeed, glandular disease of the cervix uteri never acquires half the size of the tumour before you. The symptoms were complicated by the ovarian disease, but this had little or no effect over the hemorrhage.

It may be asked, what occasioned the hemorrhage which so immediately preceded the fetor? It may be ascribed to the commencing of the sloughing process; at least the presumption in favour of that opinion is very strong. On the occasion of my seeing the patient, she was reduced almost to the last extremity of weakness; indeed, at the time I made the first examination, the safety of removing a large coagulum which lay in the vagina was very questionable, and the partial removal of it had the effect of reproducing the discharge to such a degree, that I desisted without satisfactorily accomplishing my purpose; even had the means for applying the ligature been at hand (which was not the case), the attempt would not have been made, for the hemorrhage would have been thereby renewed, and immediate death might have been anticipated; life was nearly extinguished under the hemorrhage of

the preceding day, and the recovery from the collapse was still imperfect. As there was no hemorrhage after the second attack, it is a matter of congratulation that the ligature was not applied; the operation would have been undeservedly brought into disrepute. There appears to be an important connection between the sloughing and the depressed state of the vital powers. This is not the first instance I have met with of a similar tumour taking on a sloughing process under a similar state of constitution, and such a change would seem perfectly natural in a tumour freely organised, and in a patient ex-sanguine and emaciated. I feel doubtful whether or not the tumour was underneath the mucous membrane just before the commencement of the sloughing; for the hemorrhage, recollect, was immediately followed by fetor, and the blue appearance of the tumour soon gave way to the changes of colour denoting its loss of vitality. Considering the size of the tumour, and considering the protracted watery discharges, it would seem highly probable that the mucous membrane must have been absorbed many weeks before death. But, on the other hand, the opinion that the mucous membrane in the course of absorption was the immediate cause of the sloughing, seems borne out by a close examination of the specimen. You will perceive that the tumour has lost much of its substance, and presents an irregular surface — that the whole of the mass is in a softened condition — that the process of sloughing has extended from the tumour itself to the mucous membrane of the uterus (the proper structure of the organ being healthy) — and that a small portion of the tumour seems to be still covered with membrane. It is also worthy of notice, that the edges of the greatly-dilated os uteri were perfectly healthy, as well as the coverings of the vagina itself. The result of the decomposition of the tumour was very soon manifested upon the serous membrane, and a fatal form of peritonitis came on in a few days after the commencement of the sloughing. It is not, however, the serous membrane only which is liable to suffer from decomposed animal matter; the mucous surfaces and the lining membrane of the veins and arteries may equally take on inflammatory action. I have seen several such instances. In two of them the veins of the lower extremities were inflamed, constituting phlegmasia dolens; one patient ultimately recovered, the other died; in a third, the mucous membrane throughout the intestinal canal inflamed, and the mouth became aphthous. After a long illness the patient died just when the uterus had nearly recovered its natural healthy appearance. The effect of the sloughing process will be regulated partly by the size and situation of the decomposing body, but mainly by the general state of the system; the discharges cannot, of course, be entirely prevented from accumulating in the womb, and their absorption is an inevitable consequence, the womb being, in all large tumours, much dilated, and the vessels greatly enlarged. It is an admitted fact, that the absorption of contaminated substances is generally in proportion to the existing depression of the

vital powers: thus, fever and phlebitis, arising from the absorption of decomposed placental structures, will prove infinitely more dangerous in persons debilitated from a previous uterine hemorrhage, than in persons of unimpaired constitution.

The case which I have this evening brought before you, is interesting to every practitioner of medicine; we learn this important truth, that by delaying the application of the ligature, we not only incur great losses of blood, but a defective nutrition of the system generally, which may extend (as in the instance in question) to the polypoid structures, and prove mortal. The case affords us another proof that an enfeebled state of constitution is no safeguard against acute inflammation. When the sloughing process is established, our object should be to sustain the vital energies, to disinfect the discharges, and to prevent them from accumulating in the uterus and vagina. We accomplish the former by means of a nutritious diet, and medicines of a stimulating kind (notwithstanding the existence of inflammation), the latter by disinfecting and stimulating applications.

Having laid before you the melancholy details of this case, let me now allude to the application of the ligature in a somewhat similar case of non-pediculated tumour of the womb, apparently of a desperate nature. A large tumour, of a fibrous structure, occupied the vagina so closely as to make it very doubtful whether the ligature could be applied. It was impracticable to feel any stem; the patient had sustained great discharges of blood, and for some time the stomach had ceased to retain food, and the cellular tissue was loaded with serous effusion. At the time of the operation she was losing blood very copiously; the pulse was excessively feeble, and a small quantity of brandy was immediately rejected. After much delay and difficulty I contrived to get the ligature beyond the greatest circumference of the tumour, and it is a remarkable fact that, on tightening it, the vomiting ceased immediately, and never returned, notwithstanding the patient had been harassed by it for some weeks previously. The increased supply of blood to the brain at once tranquillised the stomach; the fibrous tumour (without a stem) came away within the week, and the patient was rapidly restored to health. Reflect upon this case, and never abandon hope, under similar circumstances, but with the extinction of life.

LECTURE IV.

CHOREA DURING PREGNANCY.

General remarks on chorea; causes of chorea; history of cases; treatment.

Gentlemen: — Your attention has been directed to the disease termed chorea, by a case which has just occurred in a delicate-looking girl, and been cured by a remedy commonly resorted to,

the carbonate of iron. Although this case, in itself, presents nothing materially interesting, I am induced to bring the subject before you, in connection with pregnancy and points of real practical importance.

Chorea arising during pregnancy is of unfrequent occurrence. The disease is one of the excito-motory system, the irregular muscular contractions being, *for the most part*, involuntary. When, however, these contractions are *altogether* independent of the will (as in a very interesting case I shall presently describe), the term chorea is not strictly correct. The term convulsions (epileptic), applied to this disease in an advanced state of pregnancy, is decidedly inappropriate, on account of the senses being unimpaired, even up to the moment of death. Increased sensibility of the nervous system in pregnant women may show itself in a variety of ways, morally as well as physically; and very severe affections of the nervous system, developed during pregnancy, may frequently be traced to congenital predisposition. In an excitable habit, chorea may be produced by anything which deranges the functions of the brain or spinal marrow. Uterine irritation, for instance, independently of pregnancy, has been known to produce it. Mr. Bedingfield, in his "Compendium," mentions a case which originated in deranged menstruation. Dr. Bright relates a fatal case in a young woman, eighteen years old, where the uterus and ovaria were more or less changed in structure;* and the case is mentioned elsewhere, in which the uterus was actually inflamed.† For the most part, however, the disease is of a purely nervous character, and is unattended by any appreciable change of structure. Hence the difficulty of tracing the disturbed nervous actions to any *defined part of the nervous centre.*

The many experiments which have been made on animals, relative to deranged nervous actions, have led to no practical result. According to Magendie, it is supposed that the seat of the will is more particularly in the hemispheres of the brain, while the direct cause of motion is in the spinal marrow. The experiments of M. Serres go to prove, that injuries in the portion of the brain termed tubercula quadrigemina, is followed by motions resembling chorea, and from this, and the result of four cases of chorea, where more or less disease was found in that part of the brain, he seems to adduce a theory relative to the cause of this affection.‡ The disease, simple as it usually is, may be sufficiently severe to destroy life, especially when complicated with advanced pregnancy; and I will now give you the details of a particularly instructive case, premising a very brief allusion to several others. The first of these occurred in a very excitable habit. The lady was attacked with chorea when in the sixth or seventh month of her first pregnancy, having suffered from the disease during her childhood.

* "Guy's Hospital Reports," No. 6, p. 190.
† "Med. and Phy. Journ." vol. 57, p. 210. ‡ Lancet, vol. 13, p. 133.

Previously to the completion of the term of pregnancy she recovered, under the use of carbonate of iron and gentle aperients. The next case occurred in a pale, delicate woman, of the nervous temperament. Severe vomiting, obstinate constipation, and headache, supervened almost immediately on conception; but the spasmodic contractions did not appear until the fourth month. The stomach was then very much relieved, but the front of the head became hot and painful. The muscles of the right side of the neck and right upper extremity were severely affected; at one time they were in a state of rigidity, at another the head was drawn to one side, and the chin towards the shoulder. The attack occurred almost daily, and usually lasted about twenty minutes; and the slightest excitement or mental emotion would produce it. Purgatives gave great relief, but the convulsions continued occasionally for some time after delivery. In the first of the fatal cases, the disease supervened upon marriage, and pregnancy was the pre sumed cause. The patient died immediately after admission into the infirmary. In the second fatal case, pregnancy was not even suspected, but, on examination, P. M., an ovum, corresponding with the third or fourth month, was found in the uterus. In the third, ulceration was discovered in the intestines. In the fourth (which was a severe and protracted case), the patient died during a paroxysm, and nothing was discovered, besides great turgidity of the brain, an appearance which is common to all severe convulsions, and is an effect of the disease.

The fifth case demands your particular attention. The subject of it was a very stout woman, of short stature, and healthy appearance. She was bled in the arm six weeks previously to the seizure, on account of headache. The attack commenced on the 11th day of the month, with an involuntary action of the muscles of the face, strictly resembling chorea, and extending to the left arm. In this state she was seen by an eminent practitioner, by whom she was again bled; and the blood did not present an unhealthy appearance. The following four days there was a gradual extension of the involuntary movements to the muscular system generally, attended with a marked rapidity of pulse. Leeches were applied to the head, and other means were judiciously enforced. In the evening of the fifth day from the seizure, the symptoms assumed a more aggravated character; and as it was supposed that the period of gestation would terminate on the 24th instant, the propriety of rupturing the membranes was suggested, in the event of relief not being otherwise procured. An opiate was administered, but the stomach rejected it. The pulse was 90, and soft; and the pupils permanently contracted. In a few hours she was awakened from sleep (being about two o'clock, A. M.) with an excruciating pain in the abdomen and back, which came on at intervals, and was supposed to be the pains of labour. The practitioner by whom she was attended and myself reached the patient in two hours. The pulse was exceedingly frequent and rather weak; the speech rapid,

tumultuous, loud, and unceasing; the spasms were universal, affecting every part of the body, and so violent that it required a number of persons to steady her while I was making a vaginal examination. During this time she was perfectly sensible, but greatly agitated both in mind and body. The vagina was excessively relaxed, easily admitting my hand. The os internum was also relaxed, and allowed two fingers to enter without difficulty. As the head of the child presented, and as the membranes became rather tense, I ruptured the bag, and promptly withdrew my hand. The parturient action kept increasing, and within an hour and a half a dead child was expelled, and was directly followed by the placenta. The delivery was altogether easy, but the discharge was very trifling, owing, I suppose, to the spasmodic state of the muscular system. Delivery produced no sensible relief, and the agitations continued with its former violence. In half an hour the opiate was repeated, but without any good effect; for although it produced sleep for about 15 minutes, she awoke more agitated than before — a circumstance which was observed on several occasions, the disease having apparently gained strength by the temporary repose. During the day the muscular agitations were evidently on the increase, and six or seven persons were necessary to prevent the patient from being thrown out of bed. She, however, gradually became exhausted, and died at two, A. M., the following morning. She had been conscious of the movements of the infant only a few hours previously to delivery, but on rupturing the membranes I could not detect any movement whatever, and as for stethoscopic examination, the bodily agitation would have rendered that mode of proceeding altogether nugatory.

Examination, P. M. — Although the examination was made nearly 60 hours after death there was not the least apparent decomposition. On opening the head, the dura mater presented no abnormal appearance. A considerable quantity of clear serum was found effused between the arachnoid and pia mater, over the whole surface of the brain, escaping freely when the smallest puncture was made. The vessels of the pia mater were not particularly congested, nor was there any appearance of effusion of lymph either on the surface, or at the base of the brain. The substance of the hemispheres was firm, the cortical part was rather dark-coloured, and the sections were followed by more bloody points than usual. Upon raising the corpus callosum, its inferior portion, together with the septum lucidum and fornix was found considerably softened, and the latter was quite pulpy, especially at its posterior part. There was not any vascularity of the choroid plexus, or of the lining of the ventricles, and not more than a teaspoonful of fluid in each ventricle. The medulla oblongata and cerebellum were of a softer consistence, though not in an actual state of ramolissement. The base of the brain was natural. The spinal cord was removed to about the fourth cervical vertebra; but it presented no appearance of inflammation or disease.

Remarks. — In this very singular and afflicting case we have much that is interesting for contemplation. Presenting the symptoms of simple chorea, and not preceded by any premonitory indications of mischief, excepting headache, — commencing in the muscles supplied by the five pairs of nerves, and subsequently exciting contractions of the womb, the morbid actions continued increasing in severity, even up to the extinction of life. The singularity of this case consists in the mental phenomena being unimpaired: for although there was a degree of irritability of temper, foreign to our patient's nature, she was perfectly conscious of circumstances both past and present. Not only did she ask me, as distinctly as the tumult of speech would allow, to apply the bandage, reminding me how I applied it on a former occasion, but she also suggested the propriety of restraining the bodily agitations by a strait-waistcoat. The disease was evidently confined to the nervous and muscular systems; and had not the pulse been exceedingly frequent we should scarcely have regarded the symptoms as immediately dangerous. The morbid actions were nether epileptic nor tetanic, though more like the former than the latter, but differing essentially from both. It seems probable that the softening of the nervous matter had been for some time in progress. But how is this change to be explained? Could it have taken place subsequently to death? We are ignorant of its essential character, and of the circumstances which produced the change during life. Much, therefore, is left to conjecture. It can scarcely be regarded as an inflammatory process, for it wants its principal features. In other parts of the body softening occurs from defective nutrition; in the present instance it seems highly probable that the change might be a consequence of the pregnancy, and not necessarily a fatal change. The serous effusion, so far from being a cause, must be regarded as an effect of convulsions — of the mere impetus of the circulation; or why should its quantity be so comparatively small, and so invariably situated between the membranes, without extending to the ventricles?*

Whether the symptoms, in this particular instance, originated in simple irritation, as it is termed, or softening of a part of the nervous centre, I do not pretend to say, nor am I aware that the point is of practical importance. The evacuation of the uterus is not essential to the mitigation of the symptoms; indeed I am not certain whether the parturient action would not *at the moment* have the effect of increasing the mischief. Should there be nothing specially to contraindicate the exhibition of iron, I should certainly resort to it, notwithstanding the existence of pregnancy. The treatment by cold affusion and purgatives would also seem to be highly appro-

* A month ago I examined the body of a child two years old, who was seized, when in apparent health, with strong convulsions, and in twelve hours the child died. The only appearance was a very trifling quantity of water between the pia mater and arachnoid membrane.

priate, and local depletion should be employed merely with a view of relieving the congestion which convulsions always occasion. Violent spasm, attended with high vascular action, may be allayed by tartarized antimony. In a case of very severe spasm of the muscular system in general, which immediately followed delivery, the effect of a large dose of this medicine was both as quick and as effective as could be desired.

LECTURE V.

PLACENTAR PRESENTATION.

Clinical history of the case; observations illustrative of the opinions delivered; origin of the hemorrhage in this species of presentation; necessity of immediate delivery; dangers attending placentar presentations; rules for the conduct of the practitioner.

GENTLEMEN:— The specimen now exhibited to you is the uterus at the full term of pregnancy, having, as you plainly see, the placentar attached to the body, neck, and mouth of the organ. You already know, that in all such cases artificial delivery is essential, in order to preserve the life of either parent or child. The natural powers have certainly, in very rare instances, been equal to the delivery of the placentar first, and then the child; and such may occur once, perhaps, in fifty or sixty cases. This is, however, never to be expected, and, fortunately, the resources of art, when timely interposed, are equal to the emergency. I am acquainted with three or four such occurrences, but I have only seen two, one of which I will presently tell you something about. The case which is connected with the specimen before you may be related in a few words.

The patient had several attacks of hemorrhage during the last few weeks of her pregnancy; but, I believe, with the exception of the last attack, the hemorrhage was not particularly severe, and yet there must have been a material draining going on, for œdematous swellings had appeared; the last attack of flooding terminated her existence. Her medical attendant, finding the exhaustion death-like, feared to deliver at the instant, and sent to request my attendance. I was at home, and lost no time, but ere I reached the patient life had ceased. Prompted by feelings of curiosity I passed my finger to the uterine orifice, and it was so little open as barely to permit two fingers to enter. The attachment of the placentar, around the orifice of the womb, is too obvious to require describing. Such, in brief terms, is the history of this melancholy case; and what inferences can we deduce from its consideration? We learn this important fact, that a hemorrhage may go on to the

destruction of life, whilst the os uteri is almost closed. The coincidence may be an unfrequent one, but the states are perfectly compatible with each other. An important question now arises, viz., did the uterine orifice possess dilatability? for in cases of placentar presentation we never wait for dilatation, providing the part be moderately yielding. Whether the orifice would have yielded to the artificial dilatation, is a point I cannot absolutely declare; for even after death it was by no means lax, and yet I have scarcely any doubt that had the attempt been properly made, the hand could have entered. But supposing the uterine orifice to have been too rigid to have yielded to the hand, could the plug have been safely employed whilst waiting for the desired relaxation? The risk of blood accumulating internally in large quantities, constitutes the only objection which can attend its employment. It will rarely, indeed, be found necessary to use the plug under the circumstances here mentioned, for loss of blood rarely fails to produce a sufficient degree of relaxation for the purposes of a timely artificial delivery. But an exception may unquestionably arise, and justify the practice, provided that the practitioner remains with the patient whilst the plug is employed. Dr. Merriman found blood collected in the womb as early as the fourth month of pregnancy, and the following case quite confirms the statement: —

A woman who had reached the close of pregnancy was seized with hemorrhage, and a variety of remedies were resorted to, but without any good effect. At the end of a few hours (I believe under twenty-four) pains came on, and the child immediately descended to the outlet. Her strength continued sinking, and she died just as the child was on the point of being expelled. An hour or two after the woman's decease, the particulars of the case were communicated to me by her medical attendant, and the following morning I attended the examination of the body. On dividing the abdominal coverings, the uterus came to view, and had a singular and beautiful appearance, one-half of it being injected, and presenting through its peritoneal coat a deep purple hue, while, with the exception of its head, the infant remained within the cavity of the uterus. On the infant being withdrawn, it was found that the placentar had been attached immediately over the uterine orifice, but was severed in twain, three-fourths of the mass being still attached to the front part of the womb, and one-fourth to the back part, and through the opening thus formed the child had been forced by the expiring efforts of nature. The aperture was of course made by the child's head, and the forcible passage had not only the effect of tearing some of the placentar from the side of the womb, but also caused a slight rent which extended beyond the lining membrane, so that blood became largely infiltrated throughout the half of the mass. A quantity of blood had also collected in the interior of the organ, and it is singular to reflect upon the powerful efforts which the uterus made to expel its contents under the greatest degree of bodily exhaustion.

It has been supposed that the plug might be made to press directly upon the bleeding vessels; but whence flows the blood? Dr. Hamilton says, mainly from the placentar itself. Certain facts, however, of recent occurrence, which I will just allude to, induce me to think otherwise. A lady three months pregnant was seized with hemorrhage, which nothing arrested for any length of time, and at the sixth month a consultation was held, and it was strongly recommended to her to permit premature labour to be brought on. Religious scruples, however, overcame her feelings of personal safety, and she positively declined to submit. In a fortnight afterwards the membranes gave way, followed by numerous pieces of the placentar (nearly half of the mass), of a brown colour, and in a sodden state. On the expulsion of the remainder of the placentar, its appearance showed that very little blood could have circulated in its vessels for some time previously, and yet the discharges of florid blood continued from first to last. The membranes were decayed and black-coloured. To take another instance: I was called in haste to a placentar presentation (the case I promised to mention to you), and I found that the pains had been sufficiently expulsive to force the placentar almost through the os externum, the child being in the womb. Finding the placentar very inconveniently situated, the practitioner in attendance had cut the greatest part of the mass away, leaving the remainder adhering. There was no hemorrhage from the cut surface, and he passed his hand, delivered the child, and then brought away the piece of placentar, together with the membranes. The child was still-born; for the division of the placentar would speedily have the effect of terminating its life. There is one other point which remains to be considered.

In giving the brief history of the case on which I have founded these brief remarks, I told you that the practitioner found his patient so greatly exhausted, that he did not think it prudent to attempt the delivery; was this right or not? Let us meet the question fairly. I am unable to tell you whether or not the hemorrhage had ceased, when the practitioner reached the patient's bed-side; if it had not ceased, his duty was clearly marked out — he should have attempted the delivery without a moment's delay; but supposing the hemorrhage to have entirely ceased, and that the patient presented a moribund appearance, the rule of practice is less clearly defined, and everything must be left to individual judgment. This is a question on which I feel somewhat strongly. In my work on hemorrhage I have contemplated the state here considered, viz., placentar presentation, attended with hemorrhage, and sufficient relaxation of the orifice for the purposes of delivery, the hemorrhage having at the moment ceased, and the skin being cold, the pulse fluttering, and the patient altogether so death-like as to justify an apprehension of her inability to bear the bodily disturbance attending artificial delivery. In the work in question, I spoke of the plug, as calculated to give a check to the draining, until the system might be sufficiently recruited to sustain the

delivery. Since that work was published, I have been called to a great number of cases of placentar presentation, and in two instances only was the result unfavourable. The particulars of the first of these you are now acquainted with, and the second case has a direct bearing upon the question of delivery in an exhausted body. I will give you the principal facts of it. My friend and colleague, Mr. Knowles, on accidentally passing the house of a woman to whose accouchement he was in hourly expectation of being called, saw his patient standing at her own door; she told him that on one of the previous days she had experienced a slight *show*, but that the stain on the linen was trivial, not exceeding the size of a sixpence; she observed, that as such a circumstance had never preceded her former labours, she was induced to mention it. This conversation took place on the Saturday. At two o'clock on the Sunday morning no change had taken place, but at three o'clock the husband having been awakened by a feeling of dampness, found his wife asleep, and lying in a little lake of blood. Mr. Knowles was immediately sent for, and arrived at four o'clock; at that time there was no hemorrhage, but the exhaustion was death-like. A stimulant was administered, a napkin laid over the vulva, and a messenger was despatched for my assistance: I reached the house before six o'clock. There had been no return of hemorrhage. The napkin had no stain upon it, absolutely not a drop of blood had passed the vulva; but the death-like exhaustion continued, and I feared to sanction the delivery. The transfusion apparatus was sent for, but, owing to an unfortunate delay, it was ten o'clock before we could obtain it, and ere we had made the necessary preparation, the scene had nearly closed. Under such circumstances, the transfusion of blood would have only brought the operation into disrepute. She died almost immediately, I think before eleven o'clock. The vagina was filled with blood, and a firm substance like the placentar was felt at the os internum. The body was not examined, but I strongly suspect that blood was effused in the interior of the womb. Such cases must ever be attended with far greater danger than belongs to the ordinary class of cases, where the discharge recurs from time to time in gushings and drainings, and admits of the timely interposition of art.* I have given you these two important and unsuccessful cases, under the impression that they are infinitely more instructive than the whole mass of successful ones, which, I am thankful to say, I could have laid before you.

Should delivery in the last-mentioned case have been undertaken at all hazards? The question is a difficult one to answer, and I am fearful of misleading you, but I can tell you what would be my conduct if a similar case should present itself. I would not deliver

* The only case resembling this which I have heard of, where the first attack of flooding proved fatal, is mentioned by Robert Lee: — "The life of the patient was at once extinguished by a single gush of blood from the uterus. I examined the body, and found only a small portion of the placentar lying detached over the os uteri." — *Researches on Diseases of Women*, p. 206.

at the first moment—I would wait a little, administer a stimulant, and afford the patient a chance of rallying from the syncope which so directly follows a sudden and severe loss of blood. Should there be no improvement, I should not think it safe to wait; I should suppose that a coagulum might be over the lower part of the womb, and confine an hemorrhage then in progress within it, and in a body already much exhausted a very slight return of bleeding might destroy life. I would administer brandy in conjunction with the tincture of ergot, and deliver as promptly as possible. The patient might sink, notwithstanding the delivery, but my conscience would not upbraid me, and I should at least possess the conviction of having acted according to the best judgment of a fallible man. With reference to the successful cases (many in number) I have but little to say, beyond stating the fact, that all these patients were delivered at the earliest moment, which is the grand secret of their recovery. It is difficult to select the proper moment for the delivery; precipitation is never allowable; but, under a state of doubt whether the time for delivery has arrived or not, it will be far safer to pass the hand into the vagina, and ascertain the real condition of the uterus, than to be content with a simple examination with the finger. It is an evil to make an unsuccessful attempt, as it will lead to a renewal of the hemorrhage; and yet you will be justified in making it, — not that any state can warrant the forcible introduction of the hand into the uterus, calculated as it is to produce very important injuries of the neck and mouth of the organ. If the resistance be great, the hand must be withdrawn; but you should wait in the house, and repeat the attempt, after a renewed hemorrhage may be supposed to have weakened the resistance. Some resistance is always to be desired, and by steady perseverance the hand will gain the uterine cavity, and the difficulty will then have been overcome. During the first two or three hours after every delivery of this character, you cannot be too circumspect in guarding against further loss of blood; at such a time a comparatively slight loss has been known to bring life into immediate danger.

LECTURE VI.

OVARIAN DROPSY.

History of the case; *post-mortem* appearances; symptoms of ovarian dropsy; diagnostic characters; signs derived from percussion; rules respecting tapping; pressure of diseased ovarium on the rectum; remote effects of the disease; spontaneous rupture of the cysts; illustrative cases.

GENTLEMEN: — The subject of encysted dropsy of the reproductive system in women is an exceedingly interesting one; six specimens illustrative of this peculiar disease are now placed before you; the first consists of a collection of fluid in the fallopian tube;

the second is a small cyst attached by a narrow stalk to the broad ligament, and covered by peritoneum; it sometimes grows from the ovary itself, and is common to every period of life, even to infancy. Neither of these kinds of tumours ever, I believe, acquires a large size; the third is a malignant tumour, having a very modulated surface, and embracing many varieties of solid structure, in connection with compound cysts; the fourth, fifth, and sixth specimens represent the simple form of encysted ovarian dropsy, originating in one of the vesicles of De Graef, as is very clearly displayed in the fourth specimen; the fifth (taken from the same subject as the fourth) is an admirable illustration of ovarian dropsy in a more advanced stage; the sixth specimen, removed from the body some days ago, represents a case to which I now request your closest attention; the facts possess an unusual degree of interest, not only in a physiological, but in a practical point of view. I shall first state succinctly the history of the case, commenting on its most distinguishing features, and afterwards add a few remarks on ovarian diseases in general.

Case. — The lady who formed the subject of this case was unmarried, and fifty years of age at the time of her death; and the commencement of her disease was marked by a tumour in the groin, which continued progressively increasing in size during a period of about twenty years. About three years ago she consulted three of the most eminent men both in London and the provinces, whose opinions, however, relative to the propriety of tapping, by no means agreed. I was called to see the patient about eight weeks ago; she was exceedingly weak, very sallow, and breathed with difficulty; the abdomen was excessively distended by a swelling which fluctuated distinctly above the umbilicus, but obscurely below it; and she was generally anasarcous: I recommended her not to be tapped, and, indeed, in a few days afterwards, the respiration became so very laborious as to threaten immediate death, and tapping was imperatively necessary. The trocar was introduced in the usual place, and two gallons and a half of straw-coloured serous fluid were drawn away. It was remarked that the canula could not be made to pass beyond two-thirds of its length, the obstruction being occasioned by a firm, resisting body. On withdrawing the canula, a large and apparently solid tumour could be felt in the abdomen, fluctuating at its superior part, but at that time nowhere else. It was our impression that the enlargement consisted of the ovary, partly in a solid state and partly encysted, and that we had emptied only one of the cysts.

Decided relief followed the removal of the fluid, but it was only of short duration; for in less than three weeks the abdomen became distended as before, the respiration was equally laborious, and the extreme exhaustion led us to think that a repetition of the tapping would not be productive of relief. We did not, therefore, recommend the measure, and she only survived a few days.

The body was examined fourteen hours after death. In the first place, the trocar was introduced below the umbilicus, and about two gallons of the same kind of fluid were drawn away as at the operation during life. The abdominal peritoneum adhered partially to the structures underneath it, namely, to a large cyst above the umbilicus, and to the uterus below it.

It was evident that the trocar had not entered the cyst at all, but had merely penetrated the peritoneal cavity, where the serous fluid, which was drawn away, had been contained. The uterus was very greatly enlarged, but of healthy structure, and, together with its appendages, was widely spread out over the inferior part of the cyst, to which it adhered as closely as possible, and occupied the whole of the space from the brim of the pelvis to the umbilicus. The cyst possessed a simple structure; the upper two-thirds contained about fifteen quarts of a dark grumous kind of fluid, and the lower third was filled with a dark yellow matter of the consistence of cream cheese. The left ovary was in a healthy state, but there were no natural traces of the right.

Remarks. — In this case we have the complication of a greatly enlarged uterus adhering to a cyst, distended partly with a fluid, and partly with a solid substance, together with hydropic effusions, both in the peritoneal sac and the cellular tissue. These dropsical effusions arose, I presume, from the presence which the enlarged structures had, for a length of time, made over the great blood-vessels and absorbents. The case is instructive in several respects: it furnishes an additional evidence, that a simple cyst may remain many years in a distended state before life is brought into immediate danger. It is also an evidence of the impossibility of emptying the cyst of its solid contents by any operation during life. The removal of the fluid contents from the cyst could only have been accomplished by penetrating *above the umbilicus.* Indeed, had the trocar been introduced *below the umbilicus*, the uterus itself must inevitably have been penetrated, and the result would almost certainly have been fatal. The precise nature of the solid part of the swelling could only be conjectured during life; but considering that a solid enlargement of the ovary is almost always connected with a cyst, it might reasonably have been regarded as a portion of the ovary itself — not a merely thickened state of the cyst, but a parabysma of the ovary — a malignant form of disease. The difficulty of forming an accurate diagnosis in a case of dropsy, combined with a solid tumour, is also exemplified in the case before us; and I am not aware of any mode of investigation by which the nature of a solid swelling, resembling the one in question, can, with certainty, be ascertained. In the ordinary class of cases, the diagnosis between ascites and ovarian dropsy is sufficiently distinct.

Independently of the history of the case, and of the distinctness of the fluctuation in ascites, the abdomen undergoes a very material subsidence when the body is supine. In the case of an ovarian

tumour, on the other hand, the abdomen is almost equally prominent, whatever be the position of the body, a remark which is equally applicable to a state of advanced pregnancy. The value of percussion in distinguishing sounds over the swelling, and over the parts around it, is inestimable. It has been said, on authority, that "a brisk pressure of the hand upon the abdomen *easily* removes the water, and strikes against the cyst, the resistance of which is *always* perceptible;"* but, I think, I have already proved to you the impracticability of reaching the cyst, where there is an extreme tension of the abdominal parietes. The same difficulty may be found in distinguishing the gravid uterus when complicated with ascites, and even at the seventh month of pregnancy. Dr. Montgomery found it impracticable to feel the child by any mode of examination that could be adopted. If the lower part of the abdomen, in a case of dropsy, be occupied by a very solid body, the fluctuation being indistinct, and the gaseous sound being clear only at the sides of the swelling, we may fairly presume the disease to be ovarian; unquestionably, however, gas may be generated in the interior of the cyst. But assuming the fluctuation to be particularly distinct, and the sounds clear *above* the umbilicus, but very dull *below* it, what inference would you draw? I suppose you would say the disease was ascites, and the probabilities would greatly favour such an opinion. You will, however, recollect that the fluid in an encysted dropsy may be unusually thin, and the inferior part of the cyst almost, or altogether, in a solid state. Again, when the extent of the effusion is so great as to distend the abdominal parietes, the sound will be very dull, and the ovarium may be too high above the vagina to be reached by the finger. In a case of ovarian tumour, complicated with ascites, the interposed fluid is usually of small amount, and, if the patient be recumbent, will not obstruct the fingers from striking against the hard tumour which lies underneath it. But where the distension is extreme, nothing short of an inspection of the fluid, and of feeling the thickened cyst, on its being emptied, will remove the difficulty. Still, the signs already mentioned, afforded by percussion, may be generally depended upon. The mode in which the different sounds are produced have been ably described by M. Rostan, and I will quote his own words: —

"If (he remarks) we proceed from the inferior to the superior part of the abdomen, we shall, at first, have a flat sound, while, at the most prominent part — that is, about the umbilical or epigastric regions — we shall perceive a clear sound, like to that which we obtain on striking a bladder full of air. In encysted ovarian dropsy the reverse is the case — that is, the sound is clear at the inferior part, and dull at the superior. These differences are produced by the different relations which fluid effused into the peritoneum, and an ovarian cyst, have to the intestines. The dulness

* Boivin and Duges' "Practical Treatise," p. 465.

which we find at the inferior part of the abdomen in ascites, is the result of the accumulation of the effused fluid, which gravitates to the most dependent part of the peritoneal cavity; and, while the collection of fluid augments there, the intestines become displaced, and it is important to know of this displacement, because it is that which accounts for the clear sound in the superior regions. In fact, this sound is the result of the less specific gravity of the gases contained in the intestinal cavity, in virtue of which the intestines are raised upwards, as the fluid on which they float accumulates below. The state of the parts in encysted ovarian dropsy, is not at all the same; for in ascites the fluid is freely spread out within the peritoneum, while, in the other case, it is shut up in a more or less resisting bag, which gradually increases in size by the accumulation of serous fluid in its interior, and, as it becomes displaced, presses on the intestines of the side opposite to that on which it developes itself, and at last ends by occupying a greater or smaller space in the abdomen. This case is very different from the first; here the intestine does not float in the accumulated fluid, as it is separated from it by a wall of membrane; and, therefore, instead of being raised upwards, it will be kept and pressed against the inferior part of the abdominal parietes; and thus, in this case, we find its dull sound high up, corresponding to the cyst, and its clear one low down, where the intestines are to be found distended with gas."*

Exceptions to this doctrine will, unquestionably, now and then arise, and I shall briefly mention a case to you in proof of the difficulty which may arise in distinguishing ascites from ovarian dropsy. I was requested to see a middle-aged, unmarried lady, in consequence of a doubt entertained by her medical attendants relative to the nature of her case: it was a matter of uncertainty whether she had ovarian dropsy, or simple ascites. The abdomen was greatly distended; the epigastrium fluctuated quite as distinctly as it usually does in ascites, but the hypogastrium was hard, and fluctuated obscurely. The patient died a few day afterwards, and the body was examined. An ovarian cyst was found occupying the abdomen generally; about the epigastrium the sac adhered closely to the peritoneum, but above the hypogastrium it was quite free from adhesions; the inferior part of the cyst contained a large quantity (from two to three pounds, I should conjecture) of a deposit of a pink colour, of the consistence of thick curd. The fluid contents of the cyst resemble an infusion of coffee, both in colour and specific gravity. The same kind of deposit occupied the inferior part of the cyst in this case, as in the one first mentioned to you, the only difference being in colour. At the first moment I regarded this substance as a separation from the blood, but I now consider it as a secretion from the interior of the cysts, which, on account of its greater specific gravity, sank to the bottom.

* "La Presse Medicale."

This deposit constituted an unhappy complication, for it rendered the diagnosis obscure, and, on account of its consistence, could not be removed by tapping. "It is in cases like these (as Rostan observes), that we feel the importance of not confining ourselves to one sign, but of accurately scrutinising every symptom that can throw light on the diagnosis."

The important question of tapping is often attended with perplexity, even at the present day. Since Dr. Hunter's opinion was published,* that a patient labouring under ovarian dropsy will have the best chance of living longest who does the least to get rid of it (an opinion which has been re-echoed by Drs. Denman, Blundell, and the most eminent men in the profession), it has been generally admitted as a rule of practice, that tapping should always be deferred until the last moment which is compatible with the patient's safety. The main objections to tapping are, the consequent diminution of strength, the rapid reproduction of the fluid, and the possible inflammation of the interior of the cysts. The neglect of the operation may, however, be productive of serious evils. The distension, when extreme, has the effect of producing severe pain. The compression has also the effect of fearfully obstructing the functions of the abdominal and thoracic viscera.

Early tapping, though an exception to the general rule, may, indeed, be absolutely necessary. Two years ago I was called in consultation to the case of a recently married young woman, in whom ovarian dropsy had suddenly came on, and in a few weeks had made great progress: the chief symptoms were emaciation; great rapidity of pulse; hectic fever; increased bulk; with fluctuation, and *great pain* over the swelling. She was tapped within two or three months from the apparent origin of the disease, with the most decided benefit; she lost the pain, regained her appetite, and greatly improved in appearance; but after a few repetitions of tapping the symptoms returned, and she sank under the disorder. In old cases of ovarian disease embarrassment of breathing, which nothing short of the diminution of the tumour will relieve, is one of the most frequent symptoms. My esteemed friend, the late Dr. Darwell, published a paper in the "Midland Medical Reporter," to prove that no other symptom would justify tapping. I answered this paper, and adduced arguments for the operation. I said, that one of the most serious consequences of ovarian pressure was to be apprehended from the progressive interruption to the discharge of the alvine evacuations, until at length the obstruction be complete, the pressure not even allowing an injection to pass. I then mentioned two cases, in one of which the bowels were acted upon after the abstraction of the fluid contents of the ovarian cyst; in the other the operation was unavailing, and the obstruction proved fatal.†

* "Med. Obs. and Inquiries," vol. ii. p. 41.

† See "Midland Med. and Surg. Reporter," No. 6, vol. 1, and No. 7, vol. 2.

Since the reply was published, an old pupil of my class sent me the preparation of an ovarian tumour, which is now before you, together with the history of the case. The pressure which this ovarian tumour made on the intestines had the effect of producing a fatal obstruction in the bowels; and during *three months* the sufferer passed only *two alvine evacuations.* At length the intestines ulcerated, the contents passed into the peritoneal cavity, and life was speedily terminated. As you may perceive, the fluid was contained in several compartments of the cyst, and, consequently, relief from the operation could only have been very partial. The tumour was not, however, punctured during life.

Here, again, is a very similar specimen of disease, which, as already observed, was removed yesterday from the body of a woman whom I had an opportunity of seeing on two occasions a few weeks ago. At that time she had a protracted uterine hemorrhage, from fibrous enlargement; she had also a tumour in the hypogastrium, which then presented a feeling of solidity. It appears that some weeks subsequently to my seeing her, effusion took place into the peritoneal sac, attended by an alarming form of vomiting and constipation, under which she died. On examination, P.M., the right ovarium, as large as an adult head, and containing fluid in numerous cysts, pressed so immediately on the colon, as mechanically to obstruct the discharges, and, consequently, prove the cause of death. The left ovary resembled a large-sized egg, and was apparently solid, but it contained about an ounce of serous fluid. The uterus is much enlarged, and purulent formation has taken place in the centre of a fibrous tumour attached to the fundus, and a small polypus is seen growing from the os uteri, and from the cavity also. As the ovary was not bound down by extensive adhesions, an obstruction so complete as was here could scarcely have taken place, had it not been for the pressure of the superincumbent serous fluid upon it, and the resistance made by the distended coverings of the abdomen.

In a case like this it is possible the cyst might be best opened through the walls of the rectum, if the bulging and fluctuation be felt in that direction. The tumour proved fatal simply by its mechanical pressure;* and, notwithstanding the coincident disease of the uterus, the character of the disease is not malignant, neither as respects the uterus nor the ovary.

When the distension of the cyst is suffered to increase to the greatest extent of which it is capable, it inflames and ulcerates, pouring out its contents, sometimes through the abdominal parietes, but more frequently into the peritoneal cavity, or into the hollow viscera, so that the process may be either a salutary or an imminently dangerous one. Is a rupture of the cyst desirable? Is the risk equal to the chance of a cure, remote as it must always be?

* Dr. Robert Lee mentions a case in which an ovarian cyst, having become firmly impacted in the pelvis, produced all the symptoms of stricture of the rectum.

The extent of my information on this subject is derived from the result of three remarkable cases which occurred within my own personal observation. I will give you the heads of each case.

First Case. — I was requested to see a poor woman, whose size had, for several years, rendered her an object of notice, and who was reported to have suddenly burst. I saw her within a few minutes after the change had taken place. The cyst had given way through the abdominal parietes; a little inundation occupied the chamber floor, and the fluid was passing rapidly through the ceiling into the kitchen. She perfectly recovered, and was alive, I believe, some years afterwards.

Second Case. — The subject of this case was a middle-aged, married woman, who had never borne children. After having for two years suffered from embarrassed breathing and increasing bulk, accompanied by distinct fluctuation, varying however, in distinctness in different parts of the tumour, something appeared to give way in the abdomen, and she passed with her urine several gallons of a thick, albuminous fluid, mixed with shreds of coagulable lymph and hydatids. This returned at intervals during upwards of a year. The abdomen became nearly flat; she entirely recovered, and has now remained quite well for five or six years.

The Third Case occurred in a middle-aged, married woman, with a family. Four months previous to my seeing her she perceived a tumour in the hypogastrium, and in three months afterwards experienced pains of an expulsive character, which progressively augemented in severity, and, in consequence of the obscurity of the case, I was requested to see her. The vaginal entrance was occupied by a large globular elastic swelling, consisting evidently of the posterior wall of the vagina in a prolapsed state, and being the result of a long-continued violent straining. The vagina seemed to terminate in a blind sac, but, after a careful examination, I detected a small, semicircular aperture, quite above and over the symphysis pubis, which I thought was the os internum; but I could barely touch it with the finger, and it was impracticable to introduce the hand within the vagina. On passing the finger into the rectum a large hard tumour was felt bulging through its walls. The abdomen was greatly and unevenly distended, its bulk being equal to that in an advanced state of pregnancy. *Above the umbilicus*, the tumefaction consisted chiefly of flatus; but *below the umbilicus*, its character was that of solidity, especially at the sides. I passed a catheter, but the bladder was empty. The fluctuation was obscure in every portion of the swelling, and especially at its inferior part. A very remarkable change occurred in the progress of this case a few days after I had been consulted, for on Friday, May 18th, vomiting took place, succeeded by a marked diminution in the size of the abdomen. The vomiting was at first fæcal, and excessively offensive, but it soon assumed a brown colour, and sometimes had a green hue. The vomiting continued with scarcely any intermission until the following Thursday evening, when it sensibly declined, recurring only about once

an hour. On the following day it ceased, and the abdomen was then almost flat. It is impossible to compute, with accuracy, the quantity brought up, but it was supposed to have reached eleven or twelve gallons. The quantity which escaped the last three days was measured by Dr. Nelson and myself, and amounted to twenty-eight pints. She may be said to have passed the first few days in one continued act of vomiting. The tumour must have consisted of an ovarian cyst, complicated with a parabysma, the contents of the cyst bursting into the intestines, and being mixed with the gastric and intestinal secretions, was discharged by vomiting. She had no evacuation by the rectum whilst the vomiting continued; and she was supported for many days by means of strong animal broth mixed with the yolk of eggs. I examined this woman on the 11th day of November. She was then perfectly well in health, but the solid tumour below the umbilicus was as large as a child's head, and sometimes very painful. I could feel the os uteri very distinctly, and on either side of it I could distinguish the solid ovarium resting on the brim of the pelvis, though mainly on the left side of the abdomen, and extending from the brim of the pelvis to the umbilicus. Eleven months afterwards, during my absence from home, this woman had an illness which terminated fatally, but, unfortunately, there was no examination.

Before concluding, I shall say a few words relative to the removal of the enlarged ovary by operation. Of Mr. Lizars' cases I forbear to speak: but I have already apprised you of the success which has attended the extraction of the sac through the aperture made in the abdominal walls after its evacuation by tapping. To render the operation practicable, the sac must be in its early stage, and unadherent; and I believe that adhesions rarely, if ever, take place whilst the sac remains small. More numerous cases, however, can alone give permanent value to an operation which, in the only instances (three in number) in which it has been performed, has been perfectly successful. For more extended information on the subject of the present lecture, I beg, Gentlemen, to refer you to an elaborate paper by Dr. Bright, illustrated by a great variety of examples, in the 6th Number of "Guy's Hospital Reports." It is a very instructive paper, and I recommend you to read it with the closest attention.

LECTURE VII.

UTERINE HYDATIDS.

Watery discharges of the uterus; definition of hydatids; characters of hydatid vesicles; their nature and origin; specimen of a single hydatid; history of uterine hydatids; illustrative cases; treatment of the disease.

GENTLEMEN:—Before you examine the specimen of uterine hydatids now before you, I will say a few words on watery discharges in general, which emanate from the uterine system. The

source of some of these discharges cannot be misunderstood, such, for instance, as tumours, both of a mild and of a malignant kind, and morbid states of the lining membrane consequent upon delivery. But a watery discharge is not unfrequently a prominent feature of a really obscure disease. It sometimes may be traced to a communication having been formed by ulceration between the uterine system and the dropsical ovarium, the thinner part of the encysted contents coming away in gushings; or the fluid may issue from the peritoneal sac by a healthy canal, as the Fallopian tube. The disease miscalled dropsy of the uterus may consist in an excessive quantity of fluid from some imperfection in the structure of the ovum, as well as from a disease of the lining membrane of the uterus in its unimpregnated state. It is true the quantity of fluid may be equal to distend the uterus, presenting perhaps a fluctuating tumour, the fluid being prevented from escaping by a tenacious mucus occupying the cervix uteri. But watery discharges are also occasioned by the disease termed hydatids, and to this peculiar complaint I intend to confine my present remarks. You have already seen a woman who is the subject of such watery discharges. Here is a large mass of hydatids, the expulsion of which was attended by pain and hemorrhage; the quantity which was expelled could not be less than a quart. The hydatids are of all sizes, from a pin's head to the size of a large grape, and are connected by fine pedicles. Hydatids are never directly in contact with the surface of the womb, but are surrounded by an investing membrane, which is in fact the decidua. The history of this case presents nothing that is not common to uterine hydatids in general; but, aware of the perplexity by which these diseases are characterised, I thought it a fit opportunity for bringing the subject fully before you, apprising you that the extent of our information on it is exceedingly defective.

First, what are we to understand by the term hydatids as applied to the uterus? I need scarcely observe that TRUE hydatids, wherever situated, are regarded as a species of acephalocysts, or cysticerci, and may originate in the uterus just as in any other organ; but this occurrence is very rare when compared with the hydatid or vesicular formations of pregnancy, and it is material to distinguish the two forms of disease. Madme. Boivin's distinction is clear and simple: — "The membrane of the true hydatid (it is observed) is soft and pulpy, tolerably thick, and easily detached. That of the vesicles of the uterus is thin, tough, or leathery, resembling serous membrane, presenting blood-vessels sometimes upon its parietes, very similar to the small serous cysts which often surround the ovaria and Fallopian tubes."* Each hydatid, according to Nauche, possesses three coats.

These hydatid vesicles, when freed from sanguineous discharge,

* Boivin and Duges' "Pract. Treatise," by Heming, p. 161.

usually present a pellucid appearance, varying greatly both in their size, form, and number; in some instances resembling a bunch of grapes, in others resembling frog's spawn. There is also a great difference in their connection with the womb; for, as already observed, the hydatids of pregnancy, though occupying the cavity, are not directly in contact with its surface, but are invariably surrounded by the deciduous membrane, while this is not so with acephalocysts. It is very possible that organised lymph may be formed, just as in cases of dysmenorrhœa, but this adventitious production does neither necessarily nor usually take place; and, moreover, acephalocysts may not only be attached to the lining membrane, but generated in the substance of the womb. Authors on this subject would have been less perplexing had these distinctions been preserved. The difference between the hydatids of the chorion and this species of hydatids is most obvious; the one is peculiar to females in a state of pregnancy, the other is common to both sexes. An important question still remains to be determined, whether or not these vesicular bodies are ever generated in the womb irrespective of intercourse between the sexes. Contrary to the prevailing opinion, several eminent men (including Gardien, Denman, Sir M. Clarke, and Dr. Evory Kennedy,) seem to think it possible that the disease may arise as an original production of the womb; and although Professor Burns refers the production of hydatids to a degeneration of the ovum, he alludes to their being formed "in consequence of coagula or part of the placenta remaining in utero." An interesting case of hydatids in the substance of the womb has just been published by Mr Wilton, of Brighton.* The author does not enter into the nature of these hydatids, but I take it for granted they were acephalocysts; for how can the hydatids of pregnancy take root in the uterine substance, the decidua and the lining membrane intervening? Mr. Wilton's patient died, and when the body was examined a highly varicose state of the veins was seen at the posterior surface of the fundus, beneath the peritonæum, constituting a rounded tumour. In the diseased part there was an opening, which contained a coagulum. This opening was proved to be the immediate cause of death, by an effusion of blood in the abdomen, to the extent of several quarts. A mass of hydatids protruded into the cavity of the womb, portions of the mass being firmly adherent to it. In the vicinity of this mass the lining membrane had degenerated in character, and was covered by patches of lymph. On the removal of the adherent hydatids it was found that the lining membrane was partly wanting, and that masses of hydatids were imbedded in the structure of the organ. Towards the fundus they existed in nests of various sizes, and produced the rounded tumour at the posterior surface of the fundus, which has already been described. I beg also to refer you to Dr. Andrews's

* See Lancet, Feb. 1, 1840.

paper on this subject, entitled "Cases of Hydatids in the Uterus, simulating Pregnancy."* Four cases are detailed, two in married women, and two in unmarried females of the ages of sixteen and seventeen. In the last case the catamenia are alleged never to have appeared, and the hymen is said to have been entire. The statement which Dr. Andrews has made cannot be questioned, and what does it prove? Simply that hydatids, or, rather, acephalocysts, may be passed by virgins. The origin of acephalocysts is still very obscure; but the origin of the hydatids of pregnancy, as a degeneration of the villi of the chorion into vesicles, is no longer a matter of doubt. It has been shown that the hydatids of pregnancy cannot exist independently of serous membrane, like the membranes of the ovum. On this subject you may with advantage consult the researches of Madme. Boivin, "On the Origin, Nature, and Treatment of the Vesicular Mole."

My friend, Dr. Montgomery, has confirmed the correctness of his previously expressed opinion, by exhibiting before the members of the Dublin Pathological Society a specimen of uterine hydatids, by which he was enabled to demonstrate their origin in a most satisfactory manner: "The ovum was completely covered by the decidua reflexa; but when that was turned back the hydatids were seen growing from the villous surface of the chorion. There was another peculiarity in their mode of attachment and growth, worthy of notice. At first, one or two sprung from a single, fine, thread-like stalk, then from these one or two more, and so on, until at length a large bunch of hydatids was formed, hanging from the chorion by the original delicate single stalk."†

I now submit to your notice a preparation of some value, as exhibiting a single hydatid. The villi of the chorion are very distinct; the extremity of one of these bodies has bulged out, constituting a perfect hydatid, the size of a pea, and this was evidently the commencement of the disease. Although it is but little of the obscurity attaching to this question which I can hope to dispel, yet as female reputation and professional character may be seriously involved by erroneous views, I will briefly state what my own impression is on the point before us. I assume it as proved that a vesicular or hydatid state of the chorion is always the product of a conception which has become degenerated. I readily allow that a membrane, closely resembling the deciduous membrane of pregnancy, may be formed in certain diseases of the womb. I have, indeed, a specimen of this kind which cannot be distinguished from the real membrana decidua. But it is quite incomprehensible how these vesicular bodies can be generated in the virgin uterus. Opportunities have occurred to me of inspecting substances which were passed from the virgin uterus, and which might have been regarded as hydatids. I here exhibit to

* See "Glasgow Medical Journal," No. 4.

† "Dublin Journal of Medical Science," No. 44, vol. xv. p. 299.

you several of those bodies, which were passed a few days ago by a lady of unblemished reputation, who has been the subject of uterine hemorrhage for the last twelve or fourteen months. When first discharged they presented the appearance of small bladders (fish bladders, the patient called them), but on a close examination they proved to be portions of mucus of an oval form, containing air, and originating in a morbid state of the lining membrane.

In the ordinary form of the degeneration the hydatids are innumerable. In the second variety, described especially by Sir C. Clarke, there is a single cyst only. If I may form a judgment from my own experience, this variety of hydatid is a very unusual one; and I cannot but think that the large and sudden gushings of fluid by which its presence is said to be characterised, more frequently proceed from a sac formed during pregnancy between the amnios and the chorion. Natural pregnancy and hydatids may, indeed, co-exist. Burns says a solitary hydatid is oftener combined with pregnancy, or with a mole, than met with alone; and he has seen the hydatid expelled some weeks first. Indeed, according to this author, numerous small hydatids may be discharged, and yet pregnancy go on to the full time. It is impossible to calculate the length of time an hydatid formation may remain in the womb, though it has been known to be retained for some months after the natural term of pregnancy had expired. I conclude, however, that the expulsive action usually comes on before the completion of the fifth month. An hydatid pregnancy may not lead even to a suspicion of its existence, but after a time the evidence will be more or less characteristic of a state of pregnancy, including the suppression of the menses. I am not aware of any symptom, singly considered, that can be regarded as distinctive of the disease, and yet there are several points on which a certain degree of reliance may be placed. During the first few weeks the abdomen is disproportionately large to the period of pregnancy; in some instances a discharge of watery fluid every now and then takes place. Although liable to some diversity of character, the discharge is, for the most part, of a serous nature, devoid of colour, and comes on at irregular periods, in gushes, corresponding in this respect with the bursting of one or more of the vesicles. After a given time the empty and collapsed sacs are expelled, with hemorrhage and pain, though *pain* does not necessarily attend their expulsion. The watery discharges are sometimes tinged with blood, and in some rare instances the discharge has been almost altogether bloody, even for many months together. The watery discharge does not depend exclusively upon the bursting of a vesicle; neither does the hemorrhage always arise from detachment of the mass, but from a portion of the lining membrane of the womb which is unoccupied by the hydatid, and in a state of increased action. In this respect the blood is derived from the same source as in many cases of uterine polypi, namely, from the lining membrane generally, and not from the polypus itself. Nothing short of an inspection of the hydatids which have

been voided can enable us to decide correctly upon the real nature of the disease: usually the fœtus is either dead, or too small for its movements to be distinguished, consequently we derive no assistance from the stethoscope, and the phenomena of *ballottement* will not take place. The neck of the womb does not, it is said, undergo its usual development, but that circumstance in itself affords only presumptive evidence of the existence of hydatids, — supposing also the uterus to be decidedly enlarged, the enlargement not to exceed the firmness of pregnancy, and the signs of pregnancy to be tolerably marked.

Dr. Montgomery mentions having noticed, in two cases of hydatids, a creeping kind of movement, simulating the motions of the fœtus, at so early a period of gestation as three months and a half. In what manner this peculiar movement is produced, and what degree of reliance is to be placed upon it as a means of diagnosis, remain to be seen.

The hemorrhage which attends the expulsion of hydatids may prove immediately dangerous to life. When you recollect that hydatids may be attached to every part of the uterine cavity, greatly exceeding the extent of placental attachment in natural pregnancy, you will not be surprised at the hemorrhage being severe. But the expulsion of hydatids, even when few in number, and when the uterus is small, may also prove ultimately a source of danger. The reason is obvious. The uterus, when considerably developed, contracts powerfully, as in labour; expels suddenly a mass of hydatids, some quarts, perhaps, and being completely evacuated, returns slowly to its ordinary unimpregnated state; the hemorrhage is severe, but soon over, and there is no tendency to a recurrence. But when the development of the womb is inconsiderable, pain and hemorrhage ensue, from time to time; only a few hydatids are expelled, attended by hemorrhage, and a discharge of a serous fluid; the hemorrhage is arrested, and yet the expulsion is incomplete. After an uncertain period of time the paroxysm recurs, the strength ultimately becomes much impaired, and under an attack of severe hemorrhage the danger becomes imminent. The idea that the uterus is left in a great measure emptied, on the close of each expulsive paroxysm, seems to derive some support from the annexed case: —

A married woman, of middle age, who had never borne children, on several occasions voided hydatids from the womb, attended by hemorrhage, and a discharge of serous fluid. She was seized with a disorder of the mucous membrane of the stomach, attended by vomiting and slight fever, and whilst labouring under this attack the hemorrhage recurred, accompanied by the expulsion of more hydatids; she became comatose, and died within a few hours. I did not see the patient during life, though I was present at the post mortem examination. In the cavity of the uterus a single hydatid only was discovered, and a rough, shaggy surface, to which the hydatids had been attached, which were discharged shortly

before death; the organ was otherwise healthy, not much larger than natural, and the body was free from disease. The woman, whose case is described by Sir E. Home, died after an hemorrhage with the same kind of symptoms, viz., vomiting, feverishness, and spasms over the whole abdomen. The body was examined, and the hydatids were found to occupy every part of the uterine cavity.*

The circumstance I have already adverted to, of the womb returning to a quiet state, many times in succession, on the expulsion of a few vesicles — a considerable time elapsing between each act of expulsion — has led me to think that the chorion has the power of reproducing the hydatids, or else that the smaller vesicles continue enlarging, until, by some fortunate circumstance, the nidus is expelled, and another formation rendered impossible. Under no other view can I understand the vexatious kind of action which, from time to time, the uterus takes on.

In the treatment of hydatids, attended by a material enlargement of the uterine cavity, there can be no difference of opinion. The principles which are generally applicable in midwifery must be acted upon, and such means enforced as tend to secure an effective contraction, and, consequently, to prevent hemorrhage. We have the authority of Sir C. Clarke to justify passing the hand and removing the hydatids, supposing the hemorrhage to be considerable, the uterus to be much enlarged, and its orifice to be sufficiently relaxed for the purpose, subsequently supporting the abdominal parietes by a bandage. The ergot of rye is a remedy especially calculated to promote the contractions of the womb when it has attained a moderate enlargement; and, provided the evacuation of its cavity be indispensable to the patient's safety, the propriety of administering that medicine would seem undoubted; but in the absence of a moderate degree of enlargement, I should expect but little benefit from the ergot, and I have never been able to satisfy myself of its superiority over other medicines in cases of simple menorrhagia.

The treatment of hydatids, where the enlargement is *inconsiderable*, will be attended with difficulty; the indications are twofold, viz.: 1st, to evacuate the uterus; and, 2d, to induce a new action in the lining membrane. The ergot of rye merits a trial, although less likely to succeed than under the circumstances just stated. Tonic medicines would seem also to be especially indicated; the muriated tincture of iron, or the sulphate of zinc, may be taken in doses as large as the stomach will bear, and the cold bath may be used daily. One of the most important objects of treatment has reference to the hemorrhage, and several instances have been mentioned to me where the hemorrhage was protracted and went on to the destruction of life. The remedies calculated to arrest hemorrhage are the plug, the acetate of lead, and cold

* Vide "Transactions of a Society," &c., &c., vol. ii. p. 300.

injections. Unquestionably the plug is capable of checking an active hemorrhage, although it may not altogether stop the draining, and as it is a perfectly safe remedy in cases where the enlargement does not exceed the size of the uterus at the fourth month of pregnancy, it may be used with the same confidence as in a case of abortion. The acetate of lead may be administered either in acetic acid, combined with opium, or with extract of henbane, and cold water may be injected from time to time into the bowels. Small portions of ice dissolved slowly in the mouth, prove exceedingly grateful in many active hemorrhages from the uterus, but when the disorder depends upon the presence of an extraneous body, I should have but little confidence in that remedy. Under any circumstances the sedative effects of cold, in whatever way employed, must be ill adapted for states of great depression. Injections used with the view of reaching the cavity of the uterus, though employed even in the time of Œtius, have fallen nearly into disuse. In a material distention of the uterus by hydatids, injections would prove useless, if not positively injurious; but in protracted and frequently recurring paroxysms of pain and hemorrhage, the uterus being small, and unable effectually to cast out its contents, and the usual means having failed, injections might act beneficially. Cold water, for instance, may have the effect of exciting the contractions of the womb and emptying its cavity; it may, perhaps, be justifiable to employ a weak stimulating injection, gradually increasing its strength so as ultimately to overcome the morbid condition of the lining membrane. The utmost circumspection, however, must be exercised, lest inflammation should be produced, or lest the degree of inflammation should exceed what is necessary to cure the disease; for although the morbid condition of the womb can scarcely be overcome without inducing more or less inflammatory action, yet chronic affections of the uterus have frequently followed their employment. Even the mildest injections have been known to excite inflammation, and it is only in cases where the discharge is protracted, where its effect on the general health threatens the destruction of life, and where the usual treatment has failed, that the practice can be recommended. The nitrate of silver, as a stimulating injection, would seem well-adapted for the purpose; but alum, zinc, or other astringents, may answer equally well. In Mr. Watson's case the sanguineous discharge "finally only yielded to injections of port wine and water."*

A case of hydatids, replete with interest and instruction, lately occurred in this town, in the practice of my friend; Mr. Thomas Chavasse, to whom I am much indebted for the particulars. As Mr. Chavasse contemplates the publication of the case, I shall make only a very brief allusion to its most distinguishing features. A lady was attacked about the fifth month of her pregnancy by he-

* "Trans. of Provincial Med. Association," vol. ii. p. 354.

morrhage and pain, accompanied by the expulsion of a mass of hydatids, probably three or four ounces. The hemorrhage ceased for a short time, but returned at intervals for upwards of a year, and was attended occasionally by severe pain, and the expulsion of a single hydatid resembling a hot-house grape. The symptoms became more alarming, the hemorrhage resisting every mode of treatment which could be devised. A state of anæmia ultimately ensued, and, on the conviction that the patient's life depended on the removal of the hemorrhage, it was determined to use a stimulating injection. The third injection was impregnated with oxyde of iron, and, after using it several times, its strength was increased by the addition of one drop of the tinctura ferri sesquichloridi to each ounce of the oxyd. injection, and gradually increasing the quantity of the tincture to four drops. Its employment was followed by so much pain and tenderness, as not only to require a suspension of the injection, but also to demand a mild antiphlogistic treatment. At one time severe inflammation supervened, and the patient seemed to be sinking under irritative fever, but after this no further discharge took place; but at length, under the tonic plan of treatment, she perfectly recovered, and the uterus has since resumed its natural functions. In this case the removal of the disease is clearly referrible to the stimulating action of the iron on the lining membrane. The treatment of acephalocysts in the uterus by iron has much to recommend it; that metal, indeed, has been supposed to exert a specific action in such cases. However this may be, the principle is quite inapplicable to the hydatid formations of pregnancy, and injections of iron can only act like stimulating injections generally. In order to insure the injection reaching the cavity of the womb, it must be conveyed there by means of an elastic tube attached to a small gum-elastic bottle. The tube should have a round opening at its extremity, and should be passed a little distance within the neck, or even into the cavity of the womb.

In conclusion, Gentlemen, I have merely to remark — what, indeed, you must now be aware of — that an extensive field of inquiry is open to the diligent labourer in his investigations of this disease. We have very much to learn on the subject of uterine hydatids. If any really instructive account of the disease has been published, I have not had the good fortune to meet with it; and, although defective in a practical point of view, Mad. Boivin's treatise is the best I have read.

LECTURE VIII.

ON DISEASES OF THE BLADDER IN FEMALES, IN CONNEXION WITH THE UNIMPREGNATED STATE AND WITH DELIVERY.

Fibrous tumour of the pelvis; effects of tumours on the bladder; necessity of examining the uterus; illustrative case; polypoid diseases; neuralgia from fibrous tumour; morbid states of the bladder occasioned by difficult labour; treatment required in such cases; illustrative example.

GENTLEMEN: — The specimen of disease now presented to your notice was taken from an adult female, whom I had an opportunity of seeing during life. It consists of the bladder, vagina, and rectum, together with a tumour, apparently fibrous, which seems to have originated in the cellular tissue connecting the rectum with the pelvis. The bladder is laid open, its coats being much thickened, and its cavity contracted. There is no appearance of ulceration of the mucous coat generally; but two small fistulous apertures are very perceptible in the cervical portion of the bladder, which communicate with the tumour through the medium of the vagina and rectum. The fluid contents of the tumour, consequently, passed into the bladder. The tumour is not of a malignant nature: it has undergone a process of inflammation and softening, which, at length, implicated the neighbouring organs. The vagina and rectum, however, are healthy, excepting where the fistulous openings have formed. For many months the urine was loaded with morbid secretions, partly from the interior of the tumour and partly from its own inflamed surface, and, after much suffering, the patient died in the greatest degree of emaciation. This constitutes a brief history of the case, which I have laid before you with a view of directing your attention, not only to this but to other affections of the bladder, of a secondary nature, sometimes simulating a primary disease, and leading to consequences of the most serious kind. First, let us consider the effect which fibrous tumours and prolapsed states of the ovarium produce on the bladder. This effect may be purely sympathetic — a mere nervous disturbance, the pain and irritability being extremely severe, even though the urine presents a perfectly healthy character.

The case which formed the subject of my third lecture, was for some time distinguished by great irritability of the bladder; and yet, on a post-mortem examination, that organ was found in a sound state. In further confirmation of these views, I shall briefly mention two middle-aged women, patients of our dispensary, who laboured under symptoms which usually indicate diseased states of the bladder, and which, from the severity of the pain in voiding urine, were believed to arise from calculus; but nothing was detected on introducing the sound. On a subsequent examination I discovered in each patient a small, but exceedingly tender, fibrous tumour, situated on the posterior and superior part of the cervix

uteri, and it is remarkable, that in both cases the suffering was confined to the bladder. The symptoms gradually yielded to the mercurial influence. The importance of ascertaining, by internal examination, the condition of the uterus, in cases where the irritation seems to be confined to the bladder, is not at present sufficiently appreciated; but recollect, Gentlemen, that the effects of a disease may be the most acutely felt at a distant part, as in cases of hip disease, and here is an evidence that even a severe affection of the bladder may depend upon a disease in another organ. The examination of the uterus should be made so as to reach the upper part of the cervix, since fibrous tumours constantly form in that situation. But a fibrous tumour may have the effect of producing actual inflammation of the bladder; and then the appearance of the urine will sufficiently characterise this state of the mucous membrane, being opaque, presenting either the gruel, or muco-purulent deposit, or a curdy appearance, like minute portions of lymph mixed sometimes with blood. The appearance corresponds very much with the degree of inflammation. The same condition of the mucous membrane may arise from the application of a ligature to a polypus. Here is a polypus which I removed by ligature, and on the third or fourth day after its application the bladder became most severely inflamed. The patient vomited, had a very small, rapid pulse, intense thirst, and retention of urine. For some weeks afterwards, the urine presented a muco-purulent character, and the woman's life was despaired of; but she ultimately recovered. Here, again, is the uterus, containing only the stem of a polypus. The subject of this case (whom I did not see) died from inflammation of the pelvic viscera, a few days after the application of the ligature. The mucous membrane of the bladder was greatly injected, and presented the starry appearance delineated in the drawing here exhibited.

Verily, Gentlemen, polypoid diseases are not so simple as they are generally held to be, and I know this to be the opinion of some of the most eminent men of the age.

The inflammation may even terminate in open ulceration. A large-sized polypus, for instance, may quite occupy the vagina; or the ovarium, moderately enlarged, may descend behind the pubis and the posterior surface of the bladder, and excite a degree of inflammation which will not only extend to the mucous membrane, but lead to a breach of surface, and allow the fluid contents of the ovarian tumour to enter the bladder. Here is an immensely large polypus, many pounds' weight, which occasioned the death of the patient in the manner I have described. The ulcerated aperture in the bladder is large enough to admit the end of the finger. The inflammation of the mucous membrane continued increasing in severity, and soon occasioned the patient's death.

Having already given the particulars of this case in a paper entitled, "On Fibrous Tumours of the Uterus,"* I beg to refer you

* See "Edin. Med. and Surg. Journal," for January 1, 1840, p. 88.

to the case, and also to a somewhat analogous case, published by Dr. T. Thompson,* in which a fibrous tumour, by its pressure, produced ulcerative absorption of the bladder; and, although the tumour for some time had the effect of plugging up the aperture, the urine ultimately escaped into the peritoneal cavity, and speedily terminated life. The ovarium, when only slightly enlarged, may be plainly felt at the groin in a person of spare habit, although perhaps a portion of its substance may have descended below the brim of the pelvis, and occasioned much distress. A tumour so situated must almost necessarily consist either of the ovarium or of enlarged lymphatic glands; and the difficulty which may attend the diagnosis will not be removed by an examination through the abdominal coverings, merely. The locality of the tumour — its vicinity to the uterus — its regularity or irregularity of surface — will, together with the history of the case, supply a reasonable presumption as to its true nature. I have already mentioned to you an instance of ovarian dropsy in which the fluid came away by the bladder; and my work on Obstetric Medicine contains a case of neuralgia of the bladder occasioned by the prolapse of the ovary, the pain almost instantly disappearing on the return of the ovary into the abdomen. The work also contains an interesting case of abscess of the ovary, which burst into the bladder, and the tumour could be plainly felt, both at the groin and in the pelvis. The patient recovered, after being greatly emaciated, and enduring many months of suffering, during which time the urine was more or less purulent. About a year ago I visited a lady, in consultation with my friend, Mr. F. Elkington, whose case was parallel to the one just spoken of. A few days after the delivery of her first child, the bladder took on a severe form of inflammation, attended by pain, inability to void urine (which was highly purulent), and irritative fever. On examining the pelvis, we discovered a tumour of an irregular shape, and as large as an orange, excessively tender to the touch, and occupying the right side of the pelvis, between the bladder and the vagina; but it could not be felt over the hypogastrium. It appeared to us that the tumour emptied itself into the bladder, through an ulcerated aperture. Under the employment of the catheter, for about a month, the symptoms nearly ceased, but the urine continued purulent the whole period, and occasionally so for a long time afterwards. I will now describe to you the particulars of the most interesting case of this nature which has yet come before me.

Mrs. —— had been delivered of her first child six weeks antecedent to my first visit. The labour was short and favourable; but the second act of voiding urine was accompanied by pain, which progressively increased, so that at the end of a fortnight her distress was intolerable. The bladder was supposed to have become ulcerated, and I was desired to visit her. The pain in voiding

* See Lancet for 30th March, 1839, p. 58.

urine, especially at its close, was violent and cutting, and the inclination almost constant. She had considerable pain in the left groin, with tenderness on pressure. The urine was whey-like, and one-third of it consisted of a white curdy deposit, tinged with blood. The pulse was not very frequent. On examination, per vaginam, I discovered a tumour, resembling enlarged glands, occupying the left sacro-iliac junction, and extending to the front of the vagina, directly over the posterior part of the bladder. The tumour seemed to commence opposite to the vaginal portion of the uterus, and was so close upon it as not to present a sensible line of demarcation. It terminated at an inch above the vaginal entrance. Its structure was very firm, and pressure upon it produced very great pain. I placed her under the treatment of calomel and opium, with alkalies, enjoining perfect rest, and a milk diet. She continued progressively improving, and about three weeks after my first visit, on renewing the examination, to my great surprise not a vestige of the tumour remained. It was evident, therefore, that it must have been an ovarian tumour, for under no other supposition can the sudden and entire disappearance of the mass be understood.

I have now to speak of morbid states of the bladder, produced by causes of an exclusively mechanical kind, namely, pressure during difficult labour. You lately (two of you at least) had an opportunity of seeing a woman a few hours after her delivery by forceps, and I had great apprehension sloughing of the bladder would have taken place. It was a case of impaction. It was impracticable to pass a catheter, and, from the violence of the pains, I feared the womb would give way. It was unsafe to wait. There was barely room to pass the forceps, and this not quite in the proper direction; but, as I could distinguish the pulsations of the fœtal heart, I ventured to use the forceps, for I had only a choice of evils before me. The child was alive when the head was delivered, but delay attended the expulsion of the shoulders, and it was lost. Fortunately the mother did well, the symptoms having been mild. Ere I conclude, I will relate to you the particulars of a similar, but much more striking case, premising some practical remarks on the evils incident upon a heavy pressure of the child's head upon the bladder.

You are already aware of the symptoms by which a state of inflammation and sloughing of the lining of the pelvis is characterised, and I will not repeat them, but merely remind you of the great importance of emptying the bladder in all cases of difficult labour, and especially when the use of instruments is contemplated. The impaction, it is true, may be very close, so much so as to resist the introduction of any kind of catheter. These are extreme cases, and yet two such have presented themselves to my notice within the last month. Supposing the evidence of the extinction of life in the fœtus to be so clear and decisive that perforation be determined upon, there will be no difficulty in passing the catheter after

the diminution of the head, and *prior to making any effort at extraction*. Whenever the pressure has been calculated to injure the soft parts, the catheter should be introduced at stated periods after delivery, whether the urine be retained or not, as the most likely means to prevent sloughing. It would be unwise to wait; indeed, the symptoms might not appear until the sloughing had actually commenced; and it is very possible that an involuntary discharge of urine might excite the first feeling of alarm. The practice of leaving the catheter in the bladder for hours together, tends to keep up the existing inflammation, and the apertures in the tube constantly become plugged by thick mucus. Under a severe and long-continued pressure, such, for instance, as occurs in really difficult labours, the urine, when first drawn away by the catheter, usually presents a very dark appearance, and vomiting of a coffee-coloured secretion is sometimes associated with it. On the termination of a labour of this kind, the patient may be left in so exhausted a state as to justify the liberal employment of cordials and stimulants; and, whilst the depression continues, alcohol, ammonia, æther, a low position of the head, the application of heat to the cardia and feet, and a firm support to the abdomen, will constitute our chief resources. On reaction taking place, irritative fever is very likely to ensue, and it is important to bear in mind that the fever originates in local injury, and that the excessive action of the system cannot be subdued by depletion. We can only hope to moderate the symptoms until the natural powers are sufficiently recruited to favour healthy changes and repair the mischief which has already happened. Whatever is calculated to depress local congestion or low inflammation — whatever tends to promote the absorption of effused fluids, or to sustain the system under purulent collections, or during the separation of a slough — ought to be strictly enforced, and almost everything will depend upon maintaining the powers of the constitution; our object, in fine, should be to allay irritation both general and local, and to support the strength. A very serious practical error is often committed by confounding the rapidity of the pulse, and the abdominal uneasiness and tumefaction, with actual peritonitis. In the event of these symptoms being connected with increased sensibility of the hypogastrium, the inflammatory character of the disease is too readily taken for granted. Although the consequences of a severe labour may extend to the serous membrane, it is generally not so. We find none of the tenderness common to peritonitis, for by keeping the hand for a short time steadily over the abdomen, the sensibility will be found rather to decrease than otherwise; even if the uterus be tender on pressure, it does not follow that the disease corresponds with the pathology of hysteritis. Here the engorgement succeeds a violent delivery, and the disorder is characterised by the symptoms which denote an inflamed state of the cellular tissue. We cannot, under such circumstances, expect that a material reduction of the circulating fluids will con-

duce to those healthy changes upon which the patient's final recovery must depend. By weakening the action of the heart we deprive the organ of the power of emptying itself (denoted by frequent deep sighing), and whilst this irregular distribution of blood continues, the nervous energies will become still more depressed. Whenever pain, tenderness, and tension, afford a presumption that the inflammation has extended to the peritoneum, bleeding cannot of course be dispensed with. But accuracy of distinction is highly necessary, and in doubtful cases leeching the hypogastrium is not only safer, but usually more efficacious, than general bleeding. On the due regulation of the intestinal secretions the issue of these cases will also greatly depend; the bowels must be acted upon two or three times in the course of twenty-four hours, by appropriate remedies, such as the infusion of roses, with sulph. of magnesia, or pil. hydr. c. pulv. rhei, et ext. coloc. co.; or an occasional dose of castor oil, the alvine discharges being promptly disinfected by the chlorides. Turpentine and fœtid enemata are likewise useful, both in dispelling large collections of flatus, and exciting the natural peristaltic action. The abdomen should be rubbed with a stimulating liniment; and, should the sensibility of the system be much impaired, and the abdomen puffy, one part of the oil of turpentine, added to one or two parts of soap, or camphor liniment, is calculated to act beneficially; it is not only a counter-irritant, but reduces the bulk of the abdomen, and acts upon the kidneys. Effervescing draughts, with ammon. carbon, or draughts with camphor mixture, mint water, and comp. spirit of sulphuric æther, or comp. spirit of ammonia, are suitable forms of medicine, and the sedative solution of opium should be given nightly to procure sleep. I must again remind you that after a severe labour it is essential that the bladder should be frequently emptied, and on this point great deception often prevails; if the bladder be *distended* the large ovoid tumour will fully explain its character. But the bladder may, in a great measure, empty itself, and yet some ounces of urine remain, which it has not power to discharge. If this be permitted to continue the retention will become complete, and a state of insensibility with subsultus may be expected to follow. In several instances I have found the bladder greatly distended, and the introduction of the catheter should never be neglected, if only as a precaution. The external parts should be well sponged, and the vagina frequently syringed, by means of an elastic bottle, with tepid milk-and-water, or a tepid decoction of poppy-heads, to which, if fœtor prevails, a portion of fresh yeast may be added. If necessary, the lochia should be promoted by fomentations, and poultices applied to the os externum, or heated dry chamomile flowers placed in a flannel bag over the hypogastrium. In order to promote the secretion of milk, the breasts should be emptied as frequently as the strength will permit, the teeth and mouth should be kept free from accumulation, the hands and face sponged with tepid water, the hair cut short, and the temples bathed with a

spirit lotion; the room should be well ventilated, the temperature regulated, and the linen, both about the person and the bed, should be changed as often as convenient. These directions, trivial as they may appear, are really calculated to promote the patient's comfort and recovery. The diet during the first two or three days must be restricted to lemonade, whey, and the usual cooling drinks, substituting, as circumstances may indicate, beef-tea, milk, or fresh small-beer. If flatulence prevail, every article either of food or medicine calculated to generate gas should be avoided; plain gruel in small quantities, with the addition of a little warm milk, with a portion of soda water, may be given. As soon as the fever is abated, ammonia and preparations of cinchona, with wine properly diluted, should constitute our main resources. I will now read you the particulars of the case I spoke of.

Case. — Mrs. —— was delivered, after a very difficult labour. Great exertion was employed in the extraction of the head; the perineum was lacerated, and the recto-vaginal septum was also partially torn. The patient, however, remained tolerably comfortable for two or three days, when the pulse became very irregular and intermitting in frequency, averaging from 140 to 160, in which respect there was no change for at least a week. The abdomen became tumefied and puffy, but was neither painful nor tender to the touch. The intellect wandered, the milk and lochia were diminished in quantity, the former never ceasing altogether at any period, and the latter reappearing now and then but very sparingly. The discharge from the lacerated surface was offensive; the face was deeply flushed, the tongue was dry and covered with a yellow coat, spasmodic twitchings became general, the breathing was quick, the thirst excessive, the lips were covered with sordes, and the apartment was offensive. The bowels were at first torpid, but subsequently both urine and fæces were several times passed involuntarily. The bladder at length lost all its power, and presented a large tumour (not painful on pressure) over the pubes. The catheter was now passed, and two quarts of black urine were drawn off. On the tenth day a most violent perspiration ensued; the cheeks were crimson, the exhaustion became extreme; the patient lay unconscious, and in an apparently dying state. In a few hours, however, an improvement was perceptible, and, after a continuance of the treatment for five or six days longer, the danger was past. Although the patient was unconscious of pain at the time when the bladder was distended with black urine, yet in proportion as she recovered from the fever, a trifling accumulation of urine occasioned great pain, and demanded the use of the catheter during the succeeding fourteen days, at which time the bladder had nearly recovered its tone, and the urine its healthy qualities. The general treatment was agreeable with the principles already enforced. The recovery of the patient was perfect. In reference to this case, it only remains for me to express my conviction that had lowering measures been resorted to, and the

catheter neglected, the result would have been unfavourable. Life might have been spared, but sloughing of the bladder would almost certainly have taken place — an injury generally irreparable. In all such terminations, whilst the patient will have to sustain one of the most insupportable of human afflictions, the practitioner will be exposed to unavailing and abiding regret, perhaps mental anguish, and certainly to loss of reputation. Considerations so powerful and so affecting are eminently calculated to stimulate you to redoubled energy in your endeavours to acquire a correct knowledge of this responsible department of medical science.

LECTURE IX.

ON THE DISEASE TERMED IRRITABLE UTERUS.

History of the case; nature of irritability of the uterus; opinions of Dr. Gooch; tumours of the pelvis; distension of the uterus; illustrative cases; diagnosis of irritable uterus; treatment of this affection.

Gentlemen: — You have had an opportunity of seeing a patient labouring under the fibrous tumour of the uterus, in connection with a train of symptoms denoting the irritable uterus, described by that interesting author the late Dr. Gooch — a disease painful in its nature, truly obstinate in its course, and perplexing in its management.

The history of this patient's case may be regarded as a history of the disease in general, and its principal features may be enumerated thus: — Severe pain during menstruation, the pain sometimes preceding the appearance of the discharge, often increasing in severity for some days after the discharge has ceased, and, independently of the periods in question, frequently attacking the lumbar and hypogastric regions; the pain is increased by exertion, and speedily relieved by the recumbent posture, and yet uneasy feelings arise between the paroxysms of suffering, so that a perfect interval of ease rarely occurs; sometimes violent spasm, accompanied by a smarting and stinging sensation, attacks the sphincters of the vagina and rectum, particularly in the sitting posture; the excessive sensibility may even extend to the abdominal parietes, and in one instance which came within my own knowledge, the pubic region continued very tender at the end of four years, after a delivery by the forceps, even the pressure of the bed-clothes being sensibly felt whenever the woman lay on her back, notwithstanding the uterus and vagina were apparently healthy. Let me now direct your attention — 1st, To the term by which the disease is designated; 2dly, To the essential nature of the disease; and, 3dly, To the best mode of treating it. First, the term neuralgia,

or irritable uterus, in its ordinary acceptation, implies a mere disturbance in the functions of the affected part, irrespective of change of structure ; the term, properly speaking, is the name of a symptom, and conveys nothing definite. Whatever may be the state of the nervous system, the disease will be found to differ in one particular from hysterical and similar affections of the nervous system, viz., it never precedes the first appearance of the catamenia. I hope, by pointing out the primary causes of the disease, to assist you in forming less ambiguous views, both of its nature and treatment, than are at present entertained ; and, in connexion with the question respecting the essential nature of the disease, I shall say a few words on the opinions of Drs. Gooch and others. I have already given you to understand that Dr. Gooch did not regard the disease as in any measure inflammatory, nor as possessing any malignant tendency, but as a purely nervous affection, lasting an indefinite length of time, and ultimately disappearing, without inducing any change of structure. It should, however, be remarked, that Dr. Gooch allows the disease to be sometimes connected with a tumid or congested state of the os uteri, as well as with extreme tenderness of the part, the tenderness for the most part existing independently of swelling or any other sensible change. It is important to observe, that at the very close of the chapter on this subject, Dr. Gooch subdivides the disease into three classes, "in one of which (he says) congestion is an essential part ; in another, congestion may be absent, while another may consist of those interminable cases which nothing relieves ;" and he further remarks, "in these there may be some disease of structure in a part of the uterus out of reach of examination by touch." In opposition to Dr. Gooch,* Dr. David Davis† regards the irritable uterus as depending essentially upon chronic inflammation, and Dr. Scott‡ appears to entertain a similar opinion. The views of these several authors appear to me to be much too confined ; the grounds adduced by Dr. Gooch, that the disease is essentially irrespective of a change of structure fairly admits of question. It is very probable that the cases alluded to by Dr. Davis were complicated by a state of chronic inflammation, certainly so in Dr. Scott's case, and yet it does not follow that the character of the disease is essentially inflammatory. The pulse is natural ; the appetite good ; the tongue healthy ; and the several bodily functions are very little impaired, or at least so until the disease has continued a great length of time, for a state of protracted suffering will ultimately affect the strongest constitution. In expressing an opinion that Dr. Gooch's views of the disease are much too confined, I must, however, remark, that he was the first writer by whom public attention was directed to the subject, and the passage which I have transcribed from his

* "Diseases Peculiar to Women," p. 310.
† See "Obstetric Medicine," vol. i., p. 348.
‡ See "Edin. Med. and Surg. Journ." Oct. 1, 1834, p. 306.

work seems to me to show that some ambiguity as to the nature of the disease must have existed in his own mind. Within the last twelve years I have seen a great number of cases of the disease termed irritable uterus, and I have kept notes of seventeen of them. Three of these cases were unconnected with any appreciable cause; one was attended by descent of the ovary into the pelvis; one by descent of the uterus soon after marriage; one originated in extreme distension of the uterus during pregnancy; seven followed delivery, and four were connected with fibrous tumour. Of this number it is material to observe, that in several of the cases there was one prominent symptom, namely, excessive irritability of the vagina.

Undoubtedly the irritable condition of the uterus sometimes depends upon extreme sensibility merely. There is nothing surprising in this; indeed, deranged states of the nervous system may terminate even in death without inducing any sensible change of structure. It is my conviction, however, that an investigation into the state of the uterus and vagina, in cases of this disease, will frequently lead to the detection of organic or other changes quite obvious to the senses, the existence of which might not have been suspected. The descent into the pelvis of the moderately enlarged ovarium will produce a train of symptoms very closely simulating those of the irritable womb, and I have seen one very marked instance of this in which the distress immediately gave way on the return of the ovarium into the abdomen, although the carbonate of iron, opium, and a variety of remedies had been tried in vain. In very sensitive habits a mere prolapse of the uterus will excite very similar feelings. I have seen two such instances. One of these occurred in a young lady of very delicate habit, who had been married about four years, but had not been pregnant, and, as already observed, the disease immediately followed marriage. For two years she was confined entirely to the sofa. She had tried the cold-bath, astringent injections, and almost every description of medicine which would seem calculated to subdue pain or allay irritability. The os uteri had sunk low in the pelvis, and for the two preceding years had rested quite upon the perineum. Every means having failed, she was at length prevailed, contrary to my advice, to wear a pessary. A very small-sized pessary was introduced into the vagina, and the os uteri made to rest upon it, instead of the perineum. The relief she obtained from it was striking; in fact, she was cured almost immediately. She was able to walk a considerable distance without pain, and has remained well for two years, without experiencing any return of the disease. The second case occurred after a first delivery. In other respects, it resembles that which I have just related, and the cure was accomplished by the same means. But one of the most distressing cases of neuralgia of the uterus which I have yet seen arose from an enormous distension of the organ by liq. amnii, in connection with an acephalous fœtus. At the sixth month of pregnancy the distress was exceedingly severe — so great, indeed, that in consulta-

tion with a most estimable member of the profession (Mr. S. Partridge), it was determined to induce labour by puncturing the membranes. Great and instant relief followed the operation; but the acute sufferings returned soon after delivery, and continued for many months. According to my own experience, the irritable uterus very frequently depends upon a severe labour, and I have repeatedly traced the disease to this cause. In two such instances, delivery had been accomplished by means of the forceps. It is reasonable to suppose (considering the severity of the labours) that the uterine orifice must have sustained some degree of injury, and that the distress arose from it. At the same time, I ought to state that in one case only was there any appreciable change from healthy structure when the examination was made, and in this instance the os uteri was thick, hard, and irregular. In speaking of irritable uterus, in connection with *fibrous tumour* of the organ, I do not refer to that common class of large-sized tumours which press upon the great nervous trunks, and produce pain, numbness, and swelling of the lower extremities, but small-sized tumours under the peritoneum, imbedded perhaps in the proper tissue of the organ, and producing paroxysms of pain proportional to the predisposition of the individual. Tumours of this kind may be usually distinguished by an ordinary vaginal examination. Sometimes they are situated too high in the womb to be reached in this direction; but in several such instances I have been enabled to detect the enlargement through the walls of the rectum, and I recommend you to adopt this mode of examination in all cases of obscurity. Now and then it is impracticable by any mode of examination to discover the tumour, especially when connected with the fundus of the womb, and yet in a person of spare habit the existence of even a moderately sized-growth may be distinctly felt through the abdominal walls, just above the brim of the pelvis, and inclining towards either groin. In unmarried persons the examination may prove both difficult and unsatisfactory, owing to causes I need not dwell upon. I am at the present time prescribing for an unmarried lady, who has been harassed during the last two years with spasmodic pains about the sphincters of the anus and of the vagina — stinging pain in the vagina — an almost perpetual desire to pass urine (the characters of which are healthy), together with pain in one groin. The general health is scarcely affected, and I cannot discover any organic changes; but nevertheless it is more than probable that such severe and protracted distress depends upon change of structure. A brief allusion having been made to the state of the vagina, I beg you to understand that the morbid sensibility is not always confined to the uterus, as represented by Dr. Gooch, but extends to the vaginal structures. Not only may the vagina be equally sensitive, but the increased sensibility may be entirely confined to this part. You will fully understand this, when I tell you that in three cases of uterine neuralgia which followed delivery, the introduction of the finger into the vagina some months

afterwards was almost agonizing. In a fourth case the disease commenced soon after a first delivery. At the end of seven years the pain remained unabated, and for the nine months preceding my visit sexual intercourse could not be borne. The uterus and vagina were apparently healthy, but the introduction of the finger occasioned great pain. In a fifth case the irritability commenced after an instrumental delivery, and had continued four years. The tenderness was confined to the vagina, sexual intercourse was most distressing, and at the end of six months from the time I made the examination the symptoms had not decreased. In the sixth case, a state of extreme sensibility immediately supervened upon marriage, and continued unabated during a subsequent pregnancy, and even after delivery. The pain at the moment of intercourse was followed by a sensation of heat, both in the vagina and uterine region, which was exceedingly distressing, and did not altogether disappear under a month. In another the symptoms commenced about a year after marriage. This patient attributed the distress altogether to sexual intercourse; and although seven years had since elapsed, the irritability continues unabated, and is usually much aggravated by the original cause of excitement. The menstrual discharge is scanty, and attended with pain. The vaginal part of the uterus has become greatly elongated; it is twice its natural length, and almost reaches the external parts. Although it is free from tenderness, the superior part of the cervix is exceedingly tender to the touch, and its posterior surface is unnaturally prominent. The vagina also is painfully sensible to the touch. This woman has never borne children.

I will mention one more case, the subject of which has been married seven years, but has had no family. Menstruation, always painful, became much more so from the time of her marriage, and the pain and tenderness in the course of the spine were so severe that, ultimately, a caustic was applied, and for a long time kept open, but no relief followed. I visited the patient a few months ago, on account of increased pain in menstruation (now membraneous) and violent stinging pains in the vagina. Upon examination, I discovered a small, hard tumour in the upper part of the cervix uteri. The vaginal portion of the organ was rather tender, but the principal tenderness was in the vagina itself, and the examination was almost agonising to her. She is now under treatment. Enough, perhaps, has been said, in proof of the opinion I have already stated, that uterine neuralgia may be produced by a variety of causes. I am aware it may be thought that I have incongruously classed together with the irritable uterus, diseases of a dissimilar nature; but whatever variation may exist, the diseases will be found to agree in all that is essential. In this respect the cases described by Dr. Gooch perfectly accord, and yet in the more minute details there is the same variation. I have not adverted to the effect which a state of pregnancy would have on the irritable uterus. Menstruation is usually sparing as well as painful in these

cases, and, consequently, as in dysmenorrhœa, pregnancy is not likely to take place. A recurrence of pregnancy in one of the instances I have mentioned was not productive of relief.

The only disorder with which the irritable uterus can be confounded is chronic inflammation of that organ, a disease with which, indeed, it may be incidentally associated; but the history of the irritable uterus, the circumstances connected with menstruation, the abscess of inflammatory discharges, the long continuance of the pain, and the disproportion between the symptoms and the degree of tumefaction of the vaginal portion of the womb, constitute sufficient marks of distinction between them.

The treatment must have a strict reference to the existing cause, supposing it to be appreciable; but I would rather direct your attention to general principles than enter into details. Here, it is in vain to look for specifics.

A dusky-red state of the mucous membrane of the uterus (its vaginal portion) is sometimes distinctly seen when examined through the speculum, associated perhaps with abrasion of surface, or patches of superficial ulceration. These states should be treated by leeching, and a weak solution of nitrate of silver. The relief which the caustic produces is very marked, and the necessity for using the speculum should be clearly explained. The improvement of the general health is always an object of the greatest moment, and, in the absence of organic changes, the carbonate of iron would seem a most desirable medicine. Where dysuria prevails (as is often the case), the muriated tincture is the best form in which iron can be given, and, if necessary, the tincture of henbane may be combined with it. States of suffering must be met by anodynes. But in this peculiar disease, opium in every form should be avoided, if possible, on account of its influence over the bowels, otherwise the employment of purgatives, so objectionable here, can scarcely be dispensed with. In some instances, a combination of extract of henbane, camphor, and ipecacuanha, in doses of four or five grains of the two former, and half a grain of the latter, may be effectively substituted. The tepid hip-bath is calculated to allay the pain which accompanies difficult and scanty menstruation. I have sometimes given the extract of belladonna combined with extract of cinchona, but I have found the nitrate of silver, in doses varying from one-eighth of a grain to half-a-grain, combined with three or four grains of extract of conium, productive of more permanent benefit than any other remedy. A few grains of the powder of the extract of rhubarb may be added to the pills, if necessary, so as to insure a gentle action of the bowels; or the aperient may be taken at night, either alone, or combined with a few grains of extract of henbane. Although purging is decidedly injurious, the bowels should be daily moved, the most gentle means being selected for the purpose. In one of the cases which I have mentioned, mercury was given, and excited ptyalism, but no relief ensued. I have now only to

remark, that, from the estimation in which I have ever held the authority of Dr. Gooch, I was for some years led to regard the irritable uterus as an exclusively nervous disorder, and unconnected with any sensible alteration, or abnormal condition of parts. I inculcated these views in the lecture-room; but I am now convinced that I took only a very partial view of the subject, and that we have still much to learn respecting it. I have made these few remarks, imperfect as I feel them to be, under the hope that you will be led to acquire more enlarged views of this very intricate disease, characterised as it is by a state of suffering, both severe in kind, and protracted in duration.

LECTURE X.

ON FIBROUS TUMOURS OF THE UTERUS.

Symptoms of fibrous tumour; origin of these tumours; Dr. Beatty's case of fibrous tumours; changes taking place in the uterus; discharges accompanying fibrous tumours; changes in the fibrous tumour.

Gentlemen: — Having already submitted to your notice some preparations of the fibrous tumour of the womb, and given several of you an opportunity of personally investigating the disease, and having, moreover, an opportunity of showing you a specimen of fibrous tumour removed yesterday by ligature, I now propose to consider the subject generally, as the best commentary I can possibly make on the cases in question. Indeed, I feel convinced, that in no other way is it possible for me to treat so comprehensive a subject, either with justice to myself, or profit to you. Although I have seen a great variety of cases of this disease, I am but imperfectly acquainted with the result of the smaller description of tumours. In most of the instances, however, the tumour ceased to give trouble, and in some of them entirely disappeared. I have kept accurate and copious notes of the more important of the cases, of which I am about to give a brief summary. Of forty-seven cases, thirty-seven occurred in married women, and ten in unmarried. Of the total number, nine died; one from mere exhaustion, the emaciation being extreme, and the tumour equal in size to the gravid uterus at term; three from inflammation of the tumour; one from peritonitis, after delivery; one from phlebitis; and one from hemorrhage, in consequence of a fungoid growth of the lining membrane; one from a protracted hemorrhage, in connection with ovarian disease, and one died under circumstances which I was unable to ascertain. Of the remaining thirty-eight cases (which I shall again advert to) the disease in several of them entirely disappeared, and continues in the rest in various states, though for the most part passive.

Fibrous tumours possess great diversity of character, both as to their situation, their size, number, position, and the symptoms by which they are distinguished. As respects their structure, there is every variation and grade between sarcoma and structures having the firmness of scirrhus, and in large and old tumours the phosphate of lime not unfrequently enters largely into their texture. In opposition to the opinion of Bayle, Dr. R. Lee believes, "that the greater number of these tumours never exhibit a muscular or fleshy appearance at any period of their existence, but have a fibrous structure equally distinct when not larger than a pea, and when exceeding in magnitude the head of the human adult."* An eminent pathologist, Dr. Hodgkin, when examining some specimens of this disease in my possession, observed, that the term fibrous tumour was incorrect, and reiterated his published opinion, that all such growths possess the essential structure of compound adventitious cysts.

There is no natural malignity in the structure of a fibrous tumour, neither is a malign tendency easily acquired. Whether or not malignant action ever occurs unconnected with an existing pregnancy, or with sloughing of the lining membrane of the uterus, which covers the tumour, I cannot determine; but, unquestionably, a long-continued irritation of the lining membrane may terminate not only in increased vascularity and thickening, but even in ulceration, or fungoid excrescence of a malignant kind. An instance of this, which proved fatal to life by ulceration and sloughing of the lining membrane, I have already brought before you. These malignant changes are accompanied by a sanious, offensive discharge, emaciation, loss of appetite, and sleep, a frequent feeble pulse, and a pale-yellow countenance, but rarely, I believe, by glandular contamination. It is allowed on all hands, that fibrous growths are not highly organised; indeed, it has been said that they are not supplied with vessels, and hence the futility of attempting to effect their absorption: the fibrous tumour has, however, been injected. In a case of this kind treated by Dr. Thomson,† it is said, "he had been able to trace vessels in its substance proceeding from the centre to the circumference;" and this is not a solitary instance, for my friend Dr. Montgomery successfully injected one of these fibrous growths with very fine size. Perhaps the injections usually employed have not been equally well calculated to permeate the vessels, or the structure of the mass may have been too dense to receive any kind of injection.

The fibrous tumours may commence either singly or in masses, the size varying from that of a pea to that of an adult head; and they may arise in any part of the proper tissue of the womb, either just underneath the peritoneum, or under the lining membrane, or between them, and, ultimately, the disease may involve all the

* Med. Chirur. Trans., vol. xix., p. 106.
† Lancet for 30th March, 1839, p. 58.

structures of the part. In this specimen the disease is confined to the body and fundus of the organ, but in another it extends to the neck. The descent of the tumour has usually the effect of shortening the vagina, though in three instances I found it quite impracticable to reach the uterine orifice, which had been carried above the symphisis pubis.* Circumstances may also tend to force the womb on either side quite into the hypogastrium; thus constituting a kind of obliquity analogous to certain states of pregnancy, and distinct knobs may sometimes be felt on different parts of its surface.

The symptoms denoting the existence of the fibrous tumour correspond very much with the situation of the disease. Thus, when confined to the inferior and anterior part of the womb, the bladder will be rendered unusually irritable, and the sense of bearing down, especially in the erect posture, will be distressing. When the tumour projects posteriorly, it not only occasions pain in the sitting posture, and difficulty in passing the alvine discharges, but likewise pain in the rectum, and great irritability of the sphincter. The distress, however, as already stated, does not always correspond with the situation of the tumour. The mere sinking of the tumour is calculated to produce an expulsive effort, and under a very powerful action fibrous bodies have been entirely disconnected from the uterus. You have an instance of this in the specimen before you; indeed, the softer kinds of polypi have not unfrequently been disconnected from the uterus, either by its general contractions, or by the contractions of the neck squeezing the stem to its complete separation: usually, however, the mass separates by sloughing, of which I shall adduce a striking example. The constitutional disturbance is not peculiar to inflammation. The effect of the fibrous tumour over the cerebro-spinal system is very

* The degree of malposition will correspond with the bulk of the tumour, and with its attachments to the womb posteriorly. Since this lecture was forwarded for publication, I have read the details of Dr. Beatty's interesting case of labour, complicated with a fibrous tumour, connected with the cervix uteri on its posterior surface. It appears that it was quite impracticable to distinguish the uterine orifice either prior to labour, or during the first twenty-seven or eight hours after labour had commenced; subsequently, however, the orifice was detected above the symphisis pubis. The tumour lay between the vagina and rectum, almost resting on the perineum, the entire pelvis being blocked up by it. At the commencement of labour it was supposed that the Cæsarean section would be absolutely necessary to the delivery, and yet the tumour ultimately receded sufficiently to permit Dr. Beatty to pass his hand into the vagina, and make pressure on the tumour in the direction of the axis of the brim. By this means the further elevation of the tumour was promoted, and, finally, the child (which presented by the breech) was delivered unmutilated. The parturient action had the effect of rectifying the unnatural axis of the uterus, and of elevating the tumour quite out of its position, by the gradual retraction of the posterior part of the cervix, and the shortening of the longitudinal fibres. Dr. B. refers to an old published case of procidentia uteri, a great part of the uterus being external to the body throughout pregnancy, and yet receding in the pelvis on the accession of the first strong labour pain. — *Dublin Medical Journal* for July 1, 1840, p. 411.

striking, being denoted not only by pain in the lumbar part of the spine, but by severe hysteria on the approach of each menstrual period; in middle-age women especially, hysteria not unfrequently depends upon organic changes of this nature. Functional disturbance of the digestive powers takes place just as it does in the early weeks of pregnancy, and the mammary sympathies are sometimes equally striking. I lately saw a patient in consultation who had a severe form of uterine hemorrhage, said to depend upon placentar presentation. Milk was freely secreted, but, on examination, the symptoms were found to originate in a fibrous tumour, the size of a hen egg, connected with the upper part of the cervix uteri. An inflammatory state of the tumour will occasion a considerable degree of constitutional disturbance, and the severity of the symptoms will correspond partly with the size of the tumour, and partly with its locality. The symptoms which characterise a tumour in a state of acute inflammation cannot be misunderstood. They are augmentations of its volume; great pain, especially in moving; tenderness on pressure; a loaded, and sometimes a red and glazed tongue; frequent pulse; heat of surface; sickness and vomiting; thirst; constipation, and suppression of pre-existing discharges; rigors will rarely fail to indicate the stage of suppuration; the bladder will be more or less disturbed, the inflammatory action extending, perhaps, to its mucous membrane, and the rectum may be so affected as to constitute mechanical obstruction.

The local effect of a fibrous tumour upon the nervous tissue is very marked. One of the most striking instances of this occurred in a woman who had, for a length of time, suffered intense pain in one knee, and painful micturition, together with attacks of supposed inflammation of the bladder. The uterine derangement was apparently slight, and yet, on examination per vaginam, I detected a cluster of large and hard tumours underneath the peritoneal covering of the uterus. The pain in the knee continued very severe for two or three years, and the constitutional symptoms ultimately destroyed life. I have already expressed my conviction, that uterine neuralgia is rarely owing to mere functional disorder, and may sometimes be traced to the influence of a fibrous tumour over a naturally irritable temperament. In one of these instances, the vaginal examination was not only attended with severe pain, but followed by delirium, which continued more or less for several days; and, in a second instance, its effect upon the nervous system was almost equally striking. But, supposing the fibrous tumour to have been quite passive, the time, at length, may arrive when it receives an impulse, perhaps, from marriage; the mass grows, is productive of pain, and menstruation becomes deranged. Pregnancy and lactation again lead to its active development, especially the former; inflammation, perhaps, attacks the tumour from time to time; its central parts soften; hemorrhage may attend delivery, or peritonitis may follow it; and, supposing these evils to be averted, the tumour may become painful, and occasion numb-

ness and œdematous swellings of one or both of the lower extremities. Inflammation may also extend to the veins, constituting phlegmasia dolens, as in one of the fatal cases already mentioned.*

Although the disease may be called into active operation, at any period of life after the establishment of the catamenia, it is rarely observed until the uterus has repeatedly suffered excitement. I am not aware that the development has been noticed antecedent to the first appearance of the menses, although I have detected the disease in girls under the age of twenty; but, according to Bayle, the development has not been noticed before the thirtieth year. The effect of fibrous formations over the functions of the womb are very dissimilar in different cases, though menstruation usually becomes excessive. Moderate-sized fibrous growths may, undoubtedly, exist in the uterine walls for years, especially in persons past the meridian of life, without affecting the health, or producing any kind of inconvenience, their existence not being even suspected; and yet, in young persons, the very reverse of this may happen. Indeed, the smaller kinds of tumour usually produce more acute suffering than tumours of a larger kind, whose bulk does not incommode the neighbouring parts. It would seem, therefore, that the disturbance in the uterine system will, in a great measure, correspond with the early development of the growth, just as in pregnancy the symptoms are more active in the early than in the latter weeks. A large-sized tumour is very likely to occasion a severe and protracted form of menorrhagia, which may continue for years unattended by coagulated discharge. This circumstance is indicative, I presume, of a tolerably healthy state of the lining membrane. Usually, however, the discharges are not only copious and frequent, especially where the tumour is situated above the cervix, but freely coagulate; and yet the tumour may lead to the termination of life, unaccompanied by discharges of any kind, even leucorrhœal. It has occurred to me, repeatedly, to observe the absence of the catamenia synchronizing with the first sensible effect of the fibrous tumour, an attack of hemorrhage taking place after the lapse of a few weeks. This, in three instances, was accompanied by the expulsion of a large membrane, like the deciduous membrane of pregnancy; in two other instances, by a painful enlargement of the glandulæ Nabothi; and in all of them it was erroneously believed that abortion had happened. It is a well known fact, that fibrous tumours undergo a decided increase just before each menstrual period, a free discharge having also the effect of greatly relieving pain. Not, however, that the hemorrhage invariably produces relief, for the discharge may fail to find a ready outlet. A large-sized tumour, for instance, may materially encroach upon the uterine cavity, occasioning a change both in its size and shape. It becomes crooked, and deep enough to contain

* Death has even been produced by injuries to the viscera, interposed between the enlargement and the abdominal walls.

a considerable quantity of blood; its retention is, moreover, favoured by the narrowness of the neck, and in persons who have not borne children, by the small size of the orifice. The contractile powers of the womb are also defective, and the escape of the blood is rendered still more difficult; until, at length, the mass is expelled, and often in a decomposed state. A difficulty may, however, occur, as in the instances I will now mention to you. The first was a case of supposed pregnancy; the cervix uteri was distended by a tumour, like the ovum about the tenth week, and the uterus had ceased to make efforts for its expulsion. The mass was suffered to remain some days in this situation, and was then removed artificially; it proved to be merely solidified blood. In the other case, I extracted a real ovum from a similar situation, where it had been detained for two or three days; the ovum was confined by a fibrous tumour, situated within the walls of the cervix uteri, on its posterior side, and the pressure made upon the anterior part of the neck interrupted its circulation, and occasioned a large œdematous swelling, almost equal in size to the ovum itself, while the draining had gone on to a somewhat alarming extent. The size which the cavity of the womb may acquire, in diseases of the organ, is well displayed in the preparation now before you; it is a large fibro-cartilaginous growth, and a pound and a half of blood was actually removed from the cavity of the uterus after death. The lining membrane had the colour of vermilion, and was studded with small points, and a fungoid excrescence at the fundis occasioned hemorrhage, under which the patient sank. Here is another similar preparation, which also shows the size, depth, and irregularity of the cavity. You may, perhaps, suppose that the fibrous tumour will lead to bad consequences on the final cessation of the catamenia, but such is not generally the case, for although the function affords relief to the periodical congestion, the congestion itself will cease on this period arriving, and, consequently, the tumour is likely to undergo a favourable change. The continuance or cessation of the catamenia will, it is true, depend very much upon the size and relative situation of the tumour. The lining membrane undergoes but little change from a tumour which is confined within the structures of the neck of the uterus. If it be large and connected with the body and fundus uteri, the lining membrane will, probably, have acquired increased thickness and vascularity, occasioning frequent hemorrhage, and watery discharge. The presence of a tumour is also attended with *difficult* menstruation; and the discharge is scanty, accompanied, sometimes, by the expulsion of portions of fibrin, without colour, or by a well-formed membrane of coagulable lymph. This deciduous-like membrane is formed in the interval between the monthly periods, consequently the uterus is always more or less enlarged, and its mucous membrane preternaturally vascular. Severe disturbance in the nervous system usually ensues. This form of painful menstruation can very generally be traced to the effect of pregnancy over a fibrous growth,

previously small, and in a dormant state. Whenever this painful menstruation arises for the first time after delivery, the condition of the womb should be most carefully ascertained. I have already remarked, that the discharge is scanty. The portions of lymph are usually small, varying from the size of a pin's head to that of a finger-nail. Here, however, is a specimen of extraordinary size, three inches at least in circumference. The cavity of the uterus must have undergone enlargement, for the lady has passed nearly thirty periods of similar suffering. Lately the mucous membrane of the bowels has taken on a similar diseased action. The excitement of the uterine membrane is rarely, I believe, associated with the larger kinds of fibrous growths.

In derangements of this nature a free discharge is productive of great relief, and I have repeatedly noticed that there are two distinct periods of suffering. The first is attended with the usual slight discharge, and lasts two or three days, at which time the period appears to have terminated; but after the lapse of a short interval, varying from a few hours to a few days, an extreme state of suffering arises, exceeding the first period in severity, and unattended, or nearly so, by discharge. This also continues two or three days, and then disappears. The effects upon the lining membrane of the womb are very marked, pain and the formation of membrane being the chief. Instances of the connection here spoken of have repeatedly come before me, and in all of them the pre-existence of the fibrous tumour could be clearly proved. In the larger tumours, instead of the formations of lymph, the lining membrane not unfrequently secretes a white mucous kind of fluid, of which I shall presently speak. Sometimes again the secretion is of a purely serous character; and then, after a time, œdematous swellings arise, the appetite fails, the complexion assumes a sallow hue, in fact, a confirmed state of anæmia ensues. Inflammation of the mucous membrane of the bowels is not unlikely to succeed an obstinate inflammation of the lining membrane of the womb, and I have repeatedly witnessed it. I would, however, only be understood to say, that this morbid condition of the intestines is frequently associated with pre-existing uterine disorder; the derangement of the nervous system generally, and of the spine in particular, being kept practically in our view. There are two distinct kinds of uterine enlargement, which must be distinguished from each other, viz., fibrous tumour having an encysted structure, and general hypertrophy with induration of the proper tissue of the organ. If the development of the tumour have been partial, if its surface be modulated, defined, tender, and possess firmness, the presumption will be in favour of its fibrous character, and it is probable that other similar tumours will be in course of development. The more general enlargements of the womb appear to consist of mere hypertrophy of the uterine parenchyma. We often see this in the cervix uteri especially, the posterior or anterior surface being perhaps quite disproportionate in length and thick-

ness to the contrary side. Time alone will enable you to ascertain correctly the nature of a large and firm tumour of the uterus. Mere congestion of the organ, consequent upon suppressed menstruation, will occasion a considerable amount of enlargement; but this possesses none of the firmness of the fibrous degeneration, and differs from this disease in its history. The enlargement, moreover, yields in a remarkably rapid manner to a return of healthy menstruation. There is also a form of enlargement, comprising a thick, moderately soft and uniform swelling, occupying the interior of the cervix generally, limited to the mucous and submucous tissues, and sometimes occasioned by the obstruction which a fibrous growth offers to the free return of blood. An inflamed state of the glandula Nabothi is usually attended with considerable swelling, hardness, pain, and irregularity of the interior of the cervix, and may be easily distinguished by the finger from other morbid states of this portion of the organ. It is usually attended by more or less hemorrhage, and other discharges, and the os uteri will probably not occupy the centre of the swelling.

It is also very possible to confound small-sized fibrous growths with displacements of parts — I allude to a peculiar displacement of the womb comprising a curvature of the superior part of the cervix, having its convex surface towards the sacrum. Such a mistake, however, will not be likely to arise, if we recollect the characters of the small fibrous tumour, and connect our knowledge of these with the history of the case. A displacement, having some little resemblance to retroversion of the womb, may also occur in connection with a fibrous tumour, the orifice being forced upwards and forwards. It varies, however, from retroversion, in the enlargement occupying the cervix uteri on its posterior side, as it must always do under these circumstances.

The changes which the fibrous tumour may undergo, are for the most part the following: —

1st. The tumour may disappear by a process of absorption.

2d. It may continue enlarging to a certain extent and then remain stationary, and calcareous matter may be deposited in different parts of it.

3d. It may disappear by a long continued discharge, unconnected with a suppurative process.

4th. It may undergo repeated attacks of acute inflammation in different parts of its substance, implicating perhaps its entire structure, and terminating in mere softening or in suppuration; but the suppurative process is usually very imperfect.

5th. It may ultimately change its situation relatively to the part where it was originally developed, and project into the cavity of the womb; even through the os internum, so as to admit of removal by ligature; and if the operation be neglected, it may spontaneously slough away.*

* A large-sized fibrous tumour, recently cast off by sloughing from the uterus of a middle-aged unmarried lady, was shown to me a few days ago. Two years

LECTURE XI.

FIBROUS TUMOURS OF THE UTERUS (*Continued*).

Influence of the absorbents on fibrous tumours; earthy deposits in fibrous tumours; effect of loss of blood on fibrous tumours; discharges accompanying fibrous tumours; treatment of fibrous tumours; instances of cure; fibrous tumours producing *retroversio uteri*; sloughing of a fibrous tumour; removal of fibrous tumours.

I will now advert to my own experience in support of the several statements contained in the former part of this lecture.

1st. I have said that the tumour may yield to the agency of the absorbents, unattended by any sensible change besides its gradual disappearance. The observations already made, as to the organisation of fibrous growths, will have led you to anticipate much difficulty in reducing them by medicine; indeed, the larger and firmer class of tumours, fibro-cartilaginous and nodulated and multiform tumours, are not susceptible of discussion, and it is in vain to make the attempt. The examination of the uterus, *per vaginam*, with a view of ascertaining whether the inflammatory condition of the tumour has really subsided, should be made most deliberately, lest we confound the change occasioned by the subsidence of acute inflammation, or the absorption of the serous infiltration in the cellular tissue around the tumour, with the diminution or entire absorption of the tumour itself. It more frequently happens that whilst the cellular tissue regains its healthy state, the tumour undergoes but little appreciable change. By many eminent men the disease in question is regarded as essentially incurable; but I am quite certain that fibrous tumours, which could be distinguished so plainly as to leave no possible

previously I had an opportunity of visiting this lady on account of a tumour, supposed to be an enlarged ovary, and which occupied the hypogastrium. I made the following remark in my note book: — "A solid enlargement of the uterus, resembling in figure the gravid uterus at the fourth or fifth month. There is great hemorrhage at the monthly periods; the countenance is sallow, and the symptoms are those of anæmia. The disease has continued six years." I recollect that one or both legs were œdematous from the pressure of the tumour, and that the os uteri was exceedingly small. At this time, therefore, the case did not warrant a presumption that it would terminate in the way I have mentioned, and no other opportunity of renewing the examination was afforded me. A truly interesting and almost parallel case will be found in my work on obstetric medicine, p. 165. The disease had existed several years, and was removed by ligature. The patient has been in good health ever since. It is a singular fact, that a hard, fibrous tumour, inflaming from time to time, and producing the severest constitutional distress, may be confined within the walls of the womb, perhaps partially occupying the cavity of the organ for so many years, and at length make its way through the uterine orifice, and admit of removal by ligature, just as a common polypus does, or even slough away, and allow of the patient's recovery.

doubt of their existence, have entirely disappeared under remedies which act in a peculiar manner upon the absorbent system. Better evidence I cannot give you.

2dly. The specimens of large fibrous growths now before you (one of them surrounded by earthy deposit) present evidences of very slow growth; their great induration supplying abundant evidence in support of the opinion, that they must have been passive for a great length of time.

3dly. The tumour may yield, to a great extent at least, to protracted losses of blood and other discharges. Under the circumstances of an ordinary menstrual period, almost every enlargement of the womb undergoes a temporary reduction in size, and a protracted hemorrhage has the effect of reducing gradually, but certainly, the bulk of a fibrous tumour, until at length a very inconsiderable part of the mass remains; indeed, if the constitutional powers be sufficiently strong to withstand the discharge, the tumour cannot fail to subside; and it is only when the constitutional powers are sensibly impaired, that such an hemorrhage becomes an object of medical treatment. In a particularly striking case of this kind, in which the size of the uterus was equal to a six months' pregnancy, the hemorrhage was excessive for at least three years, at first only at the usual menstrual periods, but during the five months which immediately preceded its cessation it did not remit a single day. The effect of this hemorrhage was the disappearance of the far greater part of the tumour, a very small portion of it, corresponding to the size of a hen's egg, still remaining attached to the cervix uteri, but producing no kind of inconvenience. At the time I first saw this lady she had consulted several very eminent practitioners, and had tried the usual remedies during a period of many months without relief, and no reasonable hopes of her life could be then entertained. The tumour was observed after her first and only delivery. It was hard and painful, and extended to the umbilicus; and yet under a hemorrhage, which, in many persons, would have destroyed life, the disease was very nearly removed.

4thly. The fibrous tumour may terminate in acute inflammation and discharges of a white or purulent or grumous nature. Softening of a tumour is generally, but not necessarily, the result of pregnancy, and may or may not proceed to suppuration. It may be either very limited or extend to the fibrous tumour, generally commencing in its centre, and progressively disorganising its component parts. Inflammatory action, merely in small-sized tumours, usually pervades the entire mass, and extends to the adjacent cellular tissue. Let us suppose the existence of a defined, moderately-sized tumour in the womb. From some cause it inflames —the neighbouring portion of the organ, say the cervix, which had been previously healthy, becomes intensely painful when touched, and so much swollen as to fill up the pelvic cavity, and interrupt the discharges both from the bladder and rectum. The

effect of a few hours' inflammatory action in increasing the swelling is remarkable, and very characteristic of phlegmon. The swelling is moderately firm, diffused, smooth, and easily distinguished by a practised hand, from the defined, unyielding, and knobby character of a small fibrous growth. The hardness continues to increase so much, as to afford no indications of the presence of a fluid formation. After a time, however, the swelling subsides, accompanied with an alleviation of pain. Sometimes the relief is sudden, and follows the discharge of a quantity of purulent fluid usually formed in the cellular tissue, and not in the fibrous enlargement. On the complete subsidence of the inflammation, the tumour will be found much diminished in size, but may still plainly be felt. Grumous Discharges. — By this term, I mean a fluid having very much the colour and consistence of chocolate, or the contents of an unhealthy and imperfectly suppurated boil. The discharge, which is inodorous, does not coagulate, and seems to consist partly of venous blood and partly of a portion of the tumour itself, in a state of pulp or solution, and intimately connected with the vessels opening on the lining membrane of the womb. The discharge comes away so gradually, that several weeks may elapse during its continuance; and the subsidence, if not the disappearance of the tumour may with much confidence be anticipated. A suppurating tumour in that portion of the womb which lies above the vagina, may be discharged either by the rectum or through the abdominal parietes. In two instances, which I have seen, the tumour presented at the groin, and the contents of the abscess were discharged by puncture. Both patients recovered In one of these, however, a large and exceedingly painful tumour reappeared, about two years afterwards, in the upper and anterior part of the cervix uteri (the same situation as before), and subsided gradually under a thick chocolate-coloured discharge, *per vaginam*. In another case, a discharge of a dark, inodorous, paste-like secretion, with a deposit like gunpowder, took place both from the vagina and rectum, during the middle months of pregnancy. The tumour was situated in the lateral and posterior part of the cervix uteri; and severe constitutional distress, even to coffee-ground vomiting, came on, and threatened the destruction of life. The tumour is reduced in size since the patient's delivery, but is still large, very tender to the touch, and severely affects the nerves of the lower extremities, so as to impede walking. Genuine pus rarely forms in fibrous tumours, but I here exhibit to you a fine specimen of healthy purulent suppuration in the interior of the growth, the walls of the abscess being in a creamy state. The mass does not exceed the bulk of an orange, and derived its activity from a co-existing ovarian disease, which, as you may remember, terminated fatally by its pressure on the colon. Indeed, purulent matter to a great extent may form in large fibrous growths. A lady, who was the subject of one of these large growths, married rather late in life, became pregnant, and had a dangerous labour.

It is supposed that inflammation ensued previous to delivery, for she died in a few days afterwards; and the interior of the tumour was so much disorganised, as to contain almost a quart of purulent fluid.

Another form of discharge, under which a fibrous growth loses some of its bulk, corresponds to the white mucous discharge of Sir C. Clarke's classification. This discharge is formed in the interval between the periods of menstruation, and comes away in gushes or drainings, or both. Unlike the grumous discharge, it does not proceed from the disorganisation of the tumour, but from the lining membrane generally, as an effect of the increased action of the uterine system. In one of these instances the tumour occupied the hypogastrium, and was nearly as high as the umbilicus. The discharge became excessive, and during its long continuance the tumour was gradually reduced, until, at the end of about two years, scarcely any of it remained; so little, indeed, as only to be felt, *per vaginam;* and when I last examined, I was unable to feel it at all. It appeared to me that the fluid began to accumulate in the enlarged uterine cavity soon after the close of each menstrual period, but was prevented from escaping by mucus within the neck, acting like a plug. After the expiration of a few days, when the cavity may be supposed to have become somewhat distended, painful contractions ensued, the mucus was dislodged by the pressure of the fluid, a gush suddenly took place, and, for a time, there would be no farther obstruction. The discharge had the effect of greatly relieving pain, and reducing the volume of the uterus. Ultimately, the disease was cured.

5thly. In support of the statement, that the fibrous tumour may change its situation, relative to the part where it was originally developed, I will presently relate to you two remarkably interesting examples.

Treatment. — The inefficiency of medical treatment in cases of fibrous tumours, may be ascribed partly to the firmness of their structure and their low degree of organisation, and partly to the periodical determination of blood and the excitement which accompanied it. As the treatment must be regulated by the existing condition of the tumour, I shall necessarily call your attention to a variety of points, dissimilar, perhaps, in kind, but adapted to the varying circumstances of each individual case. The discharges from the womb, and their effect upon the disease and on the general system, demand especial attention. An inflammatory state of the tumour, from its tendency to suspend the natural secretions, should be treated as actively as the case will permit; every means, also, which may tend to allay pain or improve the general health, must be enforced. Although it is quite necessary to repress inordinate discharges, it is too much the practice to consider hemorrhage as an indication for medical treatment, without regard to the effect which the hemorrhage is calculated to produce. Not only may it be unnecessary to employ

astringent applications, but it may be really dangerous by producing not only pain, but even acute inflammation. Precaution should be observed even in suppressing hemorrhoidal discharges, for they may prove salutary by relieving the uterine circulation. Thus I have known a fibrous tumour situated within the walls of the cervix actually diminished during pregnancy, a change which could only be attributed to discharges of blood from the rectum. When the hemorrhage from the uterus is severe, or the menstrual discharge is protracted, or so copious as to be incompatible with the patient's strength, suitable measures must be promptly enforced; the muriated tincture of iron, or the superacetate of lead in acetic acid, may be recommended, and the external applications of cold, and cold injections, particularly *per rectum*, will be highly proper. A profuse watery discharge, which proceeds either from the mucous membrane simply, or from an excrescence growing from it, should be restrained by a moderately strong astringent injection, and for this purpose alum answers exceedingly well. The utmost attention must also be paid to the bowels, for constipation has not only the effect of determining blood to the womb* and increasing its circulation, but promotes uterine descent, and renders the fibrous tumour more painful. Straining should be carefully avoided, and the bowels should be regulated once or twice in the twenty-four hours by medicines which exert no direct stimulus over the rectum. An inflammatory condition of the tumour should be treated by the occasional application of leeches, either to the surface of the tumour, the uterine orifice, the verge of the anus, or the groin. The practice is especially useful in cases attended by pain, tumefaction, and tenderness; and where the periodical discharge is pale-coloured, and too scanty to afford relief, the depletion has also the effect of allaying spasm of the cervix uteri, and allowing the free egress of portions of fibrin, which, in certain form of dysmenorrhœa occupy the interior of the organ, and occasion pain and severe disturbance in the nervous system. An inconsiderable bleeding from two or three leeches will soon produce comparative tranquillity. The mere excess of fibrin sometimes, indeed, yields to a temporary abstinence from animal food, as in two very obstinate cases of this nature, which I have already mentioned to you. In cases of fibrous tumour, complicated with painful and difficult menstruation, the tepid hip-bath, and other relaxing means, should be employed a few days before each periodical return. If the vaginal portion of the uterus be in an aphthous state (so well represented by this little drawing),† a solution of the nitrate of silver applied to the surface

* A girl, attended by the late Dr. Darwall, died from excessive menstruation; she had a natural hemorrhagic tendency, and slight cuts, or even scratches, would bleed inordinately. Constipation also had the effect of producing menorrhagia. On one of these occasions the hemorrhage could not be suppressed (the plug was not used), and she died. On a post-mortem examination, with the exception of a very slight enlargement of one of the ovaria, the body was perfectly healthy.

† Obligingly taken from the living subject by a late pupil, Mr. Baker, the house-surgeon of the hospital.

will give very marked relief. With a view of exciting the action of the skin, antimonial medicines will be proper; pain may be allayed by morphia, and the bowels regulated by castor oil, or injections of the mildest kind. The hydrocyanic acid is well adapted to irritable states of the stomach. Supposing, however, an inflammatory swelling to proceed to suppuration, and that the matter does not readily find its way to the surface, on account of the resistance of the exterior coverings, we have to consider how far it is right to evacuate the fluid artificially. Some time ago, I was called a few miles hence, in consultation on a case of instrumental delivery; which was followed, in the course of a few days, by rigour and other symptoms. The woman died. On examination after death, a collection of matter was found within the uterine walls, but there was no other morbid appearance. In this instance, the matter could not have been reached had its existence been known. But supposing it to be accessible to the finger, what is to be done? The consequences of penetrating the solid structures of the womb might prove highly dangerous; and, under any circumstances, the puncture might not be made in such a direction as to reach the suppuration, supposing it to exist; and yet I think we may with propriety interfere, provided the suppuration be limited to the vaginal portion of the womb, and provided the local and constitutional suffering have become so severe as to threaten the destruction of life. A collection of this kind cannot remain any length of time in acutely-inflamed tissues, like the womb, with impunity; therefore the introduction of a grooved needle, or fine trocar, will be quite allowable, under the circumstances already mentioned; and if the chief fulness be towards the rectum, the puncture may be made in that direction, though nothing but the conviction of present danger would justify interference. A few months ago I attended a consultation, where the question of puncture was raised, and although unable to detect any fluctuation, we felt confident that suppuration had taken place; but as there was no immediate danger to life, we determined upon waiting, and within a few days the abscess burst through the rectum. Previous to this the pelvis was so filled up with the swelling, as to render it barely possible to pass a catheter. On the patient's recovery, a small-sized fibrous growth could still be distinguished above the vagina. I will now relate to you the particulars of a case where the termination was still more interesting, but the precise character of the uterine enlargement still remains uncertain.

Mrs. ——, a married woman, but without family, for some months had experienced pain in the back and hypogastrium. I visited her in April, 1836. A few weeks previously to this, a tumour, in a state of actual inflammation, had been distinguished in the hypogastrium, extending to the umbilicus. On examination, *per vaginam*, I found the tumour resting upon the ossa pubis, and evidently contiguous with the uterine orifice; indeed, the cervix uteri was distended by it, and was nearly globular. About a

month subsequent to my visit, a discharge, *per rectum*, of extremely offensive and brown fluid took place, and continued escaping for about three weeks, when it entirely ceased. It frequently came away unmixed with fæces. The abdomen was not sensibly diminished for the first day or two, but, antecedent to the final disappearance of the discharge, it had nearly subsided. A year after this, the patient called upon me, and on examination, both *per hypogastrium* and also *per vaginam*, the disease seemed to have entirely disappeared, and the uterus felt quite natural.

You are already aware that it is a common practice to resort to powerful medicines, with a view of discussing fibrous tumours; but, in these cases, such remedies must be introduced so largely into the system, before they will produce any decided effect upon the disease, that in persons of a weakly constitution their beneficial influence is by no means commensurate with the injury they inflict upon the general health. The slow action of such medicines on the diseased part, is accounted for by the low organisation of the tumour. The use of mercury should be confined to cases of acute inflammation, accompanied by much pain, tenderness, tumefaction, and, perhaps, infiltration of serum. In such cases, the specific action of mercury on the system produces much benefit; but, under other circumstances, its employment, except as an alterative, will prove hurtful. The influence of iodine, as well as mercury, over the absorbent system, is well known; but can the administration of iodine be recommended with the view of promoting the absorption of a fibrous tumour? Dr. Ashwell, who has written so very ably on this point, tells us that he found iodine far less effectual in hard tumours of the walls of the uterus than he did in similar diseases of the neck of the organ; in the former it had the effect of only restraining the increase of growth, in the latter the disease was cured by it.* I have myself also had reason to attribute the diminution, and even the disappearance of small fibrous tumours, for the most part to the effect of iodine, and in persons of unimpaired health it ought to be tried. But much harm may attend its large and protracted employment, and in feeble habits it is far better to rely upon measures which are perfectly compatible with the maintenance of the general health, and to limit iodine to its external employment. It may be rubbed on the perineum, groins, and thighs, and thus be effectually introduced into the system. A middle-aged lady took iodine largely, until the mouth was affected by it. A year afterwards I prescribed an ointment for her, composed of the hydriodate of potass and lard, and whilst using it she remarked, as a singular circumstance, that the taste of the iodine had returned; she was, in fact, under its decided influence. The ioduret of iron would seem well adapted to a class of cases attended with discharges and constitutional weakness. With a view of relieving the pain which is sometimes produced by blood,

* Guy's Hosp. Reports, No. 1, p. 147 and 153.

confined, and perhaps decomposed, in the enlarged cavity of the womb (the only class of cases to which it is applicable), tepid water might be injected by means of an elastic bottle, to which a narrow elastic tube is attached, sufficiently long to reach the uterus, the body being recumbent, and the hips resting on the edge of a shallow vessel to receive whatever may return. In several protracted cases of dysmenorrhœa, from organic mischief, the effect of a small blister over the lumbar part of the spine was productive of very marked relief. The liability to frequent recurrence of the inflammation in a fibrous tumour, renders it improper to employ friction over its surface, or adopt any stimulating treatment; at least, not until the disease has become purely chronic. In very large tumours, a bandage, composed of very yielding materials, is sometimes useful by affording support to the tumour, provided it does not press upon the large veins and absorbents. Steel medicines are indiscriminately employed in almost all discharges from the womb. In cases of menorrhagia the value of steel is universally admitted; but in dysmenorrhœa, attended with the formation of membrane, steel may prove too stimulating, the blood usually containg fibrin in excess. Considering how the growth of a large tumour is promoted by a state of pregnancy, the duty of enjoining abstinence for a time cannot admit of doubt, and especially when the disease occupies the cervix. The danger of the tumour becoming inflamed, or presenting an obstacle to delivery, together with the increased risk of hemorrhage, will fully warrant such a recommendation. Moreover, the infant ought not to be nursed by the mother, for the tumour can scarcely subside whilst the mammary excitement continues. During a state of inflammation, perfect rest will be indispensably requisite. Under other circumstances, exercise, unless productive of pain, ought not to be neglected, lest the confinement should affect the general health. The position of the body must be varied according to circumstances; and, although the bladder is liable to be acted upon by the pressure of large-sized tumours, when the body is erect, the recumbent position should not be too strictly enforced, especially where there is obstinate constipation. Where the uterus has become retroverted by a fibrous tumour, the usual treatment must be pursued, though its replacement will, in a great measure, depend upon a diminution of the disease producing it. I have seen two such cases; the one occurred during pregnancy, and rectification, and took place under the use of the catheter. The second occurred a few days after an abortion, the same means were employed, and the tumour (very tender to the touch) disappeared under the mercurial influence. A still more important complication remains to be mentioned, namely, an advanced state of pregnancy with a large-sized tumour. In a case of this nature, attended with great danger to life, it might become quite necessary to bring on premature labour; but I am unable to lay down any specific rules for your government. Some very able remarks on

this subject by Dr. Ashwell,* and a few plain comments by myself,† are already before the public, and to these I beg to refer you.

The fifth and last proposition, that the fibrous growth may ultimately change its situation so as to be expelled by the action of the womb, or slough away, or admit of removal by ligature, admits of very easy proof. You have already seen a specimen of fibrous growth, which was dissevered from its connections by the powerful action of the womb. In a still more marked instance, preceded by an hemorrhage of three years' duration, a fibrous tumour, which was sufficiently large to occupy the hypogastrium generally, had the effect of dilating the os uteri, and allowing the greater part of the mass to enter the vagina. Sloughing presently took place, which led to the detachment of the tumour and the removal of the disease; but the process had very nearly destroyed the patient. Had an examination *per vaginam* been made sufficiently often, the sloughing might have been prevented by the timely use of the ligature. It is true that the hemorrhage may go on for months, or even years, before the tumour reaches the lower part of the womb so as to be satisfactorily examined, and previously to this it is impossible to calculate with any degree of certainty on the course which the disease will take; but the change in question is far from improbable. Many such cases are on record; and whatever be the kind or degree of uterine enlargement, provided hemorrhage or other discharge should continue, and there be no decided evidence of malignant disease, the vaginal examination should be made from time to time, so as to watch the progress of the case, and act according to circumstances. The practice so commonly pursued of leaving a fibrous tumour altogether to its own course, is as dangerous as it would be to leave a true polypus to its own course, and is, therefore, equally to be reprobated. In regard to the removal of fibrous tumours by the ligature, I must observe that the success of the operation will depend very much upon the peduncle (usually very short in purely fibrous polypi) not having a covering of the proper structure of the uterus, and its lining membrane. Consequently, it is of the last importance to place the ligature on that part of the stem which is at the greatest distance from its uterine extremity; indeed it would be less objectionable to include a portion of the tumour itself, than to apply the ligature too near to the uterine parenchyma. The stem may consist almost altogether of the parenchyma, as in one of the specimens now before you; and an inspection of this will at once enable you to appreciate the danger which necessarily attend the application of the ligature under such circumstances. At the commencement of this lecture I called your attention to a specimen of fibrous growth, which was removed yesterday by ligature. The case is an important one, and I will give you the particulars. An unmarried

* Guy's Hospital Reports, No. 1, and Lond. Med. Gazette for Dec. 17, 1836.
† Obstetric Medicine, p. 153.

lady, aged forty-seven, began to suffer upwards of two years ago from excessive menstruation. For the first year this was the only symptom of disorder; but about the end of this time it was both preceded and accompanied by pain. She became sallow, lost her appetite, had a sharp, small pulse; the menstrual periods were characterised by hemorrhage and the formation of coagula, with an intervening watery discharge. On examination *per vaginam*, the uterus had acquired a large and round form, and had descended low in the pelvis. It had a very firm feeling, varying, however, in its firmness in different parts. The cervix uteri was a mere ring, and occupied the left sacro-iliac junction, and the os internum was remarkably small. The body, the fundus, and the portion corresponding to the neck of the organ seemed almost equally globular. This examination was made in May. At the beginning of August the distress increased; vomiting frequently took place, and the pain became greater, more especially in the left hypochondrium, and here there was great tenderness on pressure, and pain during inspiration.

I renewed the examination in the early part of October, when a very marked change had taken place. The inferior part of the womb, instead of being globular, had assumed an elongated and oblong form, not unlike a large German sausage, but much thicker. The os uteri, still in the left sacro-iliac junction, was now sufficiently open to admit the point of the finger, which came in contact with a very hard tumour. I had now an impression that the tumour would ultimately dilate the orifice, and pass into the vagina. In November there was but little change. The discharges were sometimes white and watery, sometimes rather adhesive and slightly tinged with blood. In the following March, I found the great bulk of the tumour in the vagina: it was very hard, irregular, and in shape resembled a large mushroom with sharp edges. Beyond the great body of the tumour, I could just perceive a very thick, short neck, having the feeling of fresh-cut Indian rubber. The uterus was much enlarged, and a second and smaller tumour could be distinctly traced in the hypogastrium. Unpromising as the case really was, yet, under an impression that the result would soon be fatal if nothing were done, I strongly recommended a trial of the ligature. In this opinion Mr. Hodgson, who was afterwards consulted, promptly concurred, and obligingly gave me his assistance at the operation. The ligature came away on the eighth day, leaving the tumour in the vagina. It was extracted by the forceps, though not without difficulty; and I now present it to your notice. It has no appearance of stem, and is too much torn by the crotchet to admit of your examining it advantageously; but it evidently has all the characters of the fibrous tumour. The patient did not experience a single bad symptom from the moment of the operation, and has now acquired a greatly improved state of health. The functions of the uterus are quite natural. The uterus is still too large, and the tumour which was felt in the hypogastrium seems connect-

ed with the body and neck of the womb, almost at a right angle with it, corresponding in its situation with the right sacro-iliac junction. It might be material in this species of tumour to use the ligature apparatus invented by Dr. Von Graefe, so as, if needful, to remit the pressure : a principle which equally applies to old cases of *inversio uteri*. The extirpation of a tumour which is defined, and does not extend beyond the vaginal part of the womb, might certainly be accomplished, although not without great risk, as in a case I have detailed elsewhere.* Severe pain, important hemorrhages, and constitutional distress threatening danger to life, might possibly justify the practice ; but such cases have not at present come before me. The necessity for such a step might also arise from difficulties in parturition, either actually existing or anticipated, the destruction of the child being the only alternative ; but the propriety of so formidable a proceeding should be most maturely considered in consultation. And now, Gentlemen, as this the last opportunity which will be afforded me of addressing you during the present session, I beg to acknowledge the marked attention you have given to the clinical instructions, which I have delivered in connection with this branch of medical education. My anxiety to impress important practical truths on the mind has been most satisfactorily responded to by the class, and although the obligation is mutual, you have afforded me a strong incentive for renewing these lectures at a future time.

* Obstetric Medicine, p. 146. The tumour, which nearly filled the cavity of the pelvis, was successfully excised by Mr. Samuel Evans, of Belper, formerly a most intelligent pupil of the midwifery class.

THE END.

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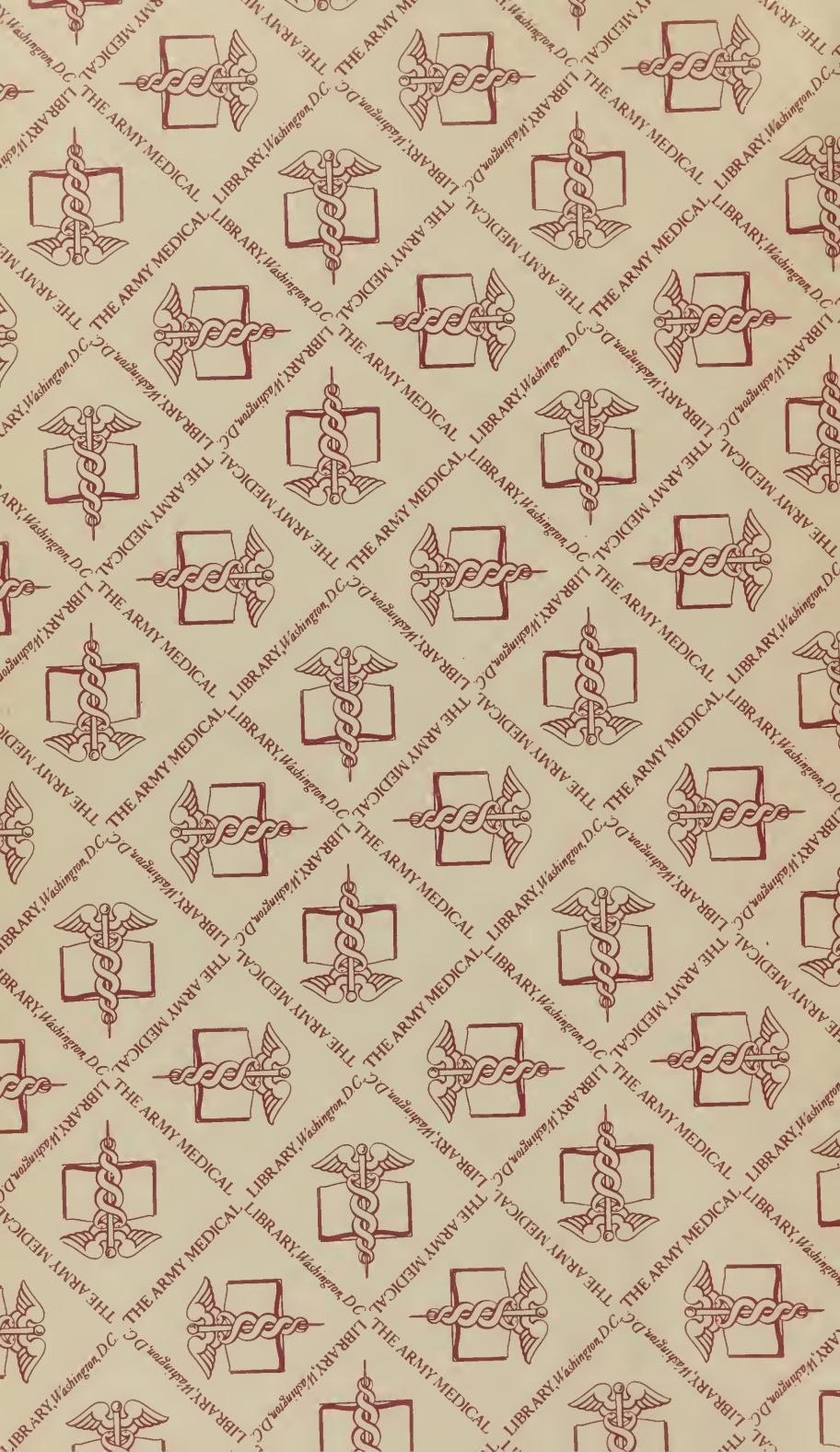
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